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BA, MA, MEd

Image Analysis for Translating

English Multimodal Texts into Greek.

A Multimodal Semiotics Approach to Translation

Training in a Greek Higher Education Context.

Doctor of Education (EdD)

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List of Abbreviations

5SP	Five-Step Process
AcVer	Across Verbal Elements
AcVis	Across Visual Elements
AgVer	Against Verbal Elements
AgVis	Against Visual Elements
MDA	Multimodal Discourse Analysis
MST	Multimodal Semiotics Translation
SF	Systemic Functional
ST	Source Text
TAP	Think Aloud Protocol
TS	Translation Studies
TT	Target Text
VerMax	Maximal Verbal
VerMin	Minimal Verbal
VisMin	Minimal Visual
VisMax	Maximal Visual
VerPar	Partial Verbal
VisPar	Partial Visual
WiVer	With Verbal Elements
WiVis	With Visual Elements

ABSTRACT

This study explores the image analysis practices of undergraduate translation trainees in a Greek university. The key research questions focused on the trainees' perception of the role of visual literacy in translation, the nature of their verbal and visual associations and activities effective for developing this role.

Visual literacy, semiotics, and translation theories provided the conceptual framework for this multimodal semiotics approach to translation training, which guided my examination of the way the trainees described semiotic resources, how they used verbal and visual elements of a translation task, and the extent to which they focused on the visual. Expanding on the concept of mediation, I developed a 'verbo-visual' mediation model that included visual semiotic elements to provide a detailed description of the ways in which the trainees intervened in the translation process.

Through an action research study I gauged the extent to which the trainees had developed visual literacy skills. I planned a series of tasks centred on the translation of a multimodal text from English into Greek. I used direct and video observation of the students as they performed the tasks and afterwards evaluated their translations.

The main findings of my research reveal that the trainees found it difficult initially to consider all the semiotic elements of the data-text whilst simultaneously translating its verbal elements. However, by providing examples of potential verbal-visual interactions and reflecting on and modifying the tasks, I found that the trainees began to appreciate

non-verbal elements as potential translational factors. I was thus able to demonstrate a raised level of awareness of the visual elements of multimodal texts to some extent for all trainees in this study.

The research suggests that customized image analysis, photo-elicitation and visualization techniques may play a part in the improvement of translation training in a multimodal semiotics translation environment.

Keywords: image/text interaction, intersemiotic translation, multidimensional translation, multimodal semiotics translation, verbo-visual mediation, visual literacy.

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Dedicated

To those who believed in me

1. INTRODUCTION

1.1 Translation studies

A brief and generic definition of translation is the process in which a text in one language is produced as a text in another language conveying the same meaning. The exact form of the 'text', the cultural implications of the 'languages' and the context of the 'meaning' make the practice and study of translation a difficult task. Translation studies (TS), according to Williams and Chesterman, is defined as 'the field of study devoted to describing, analysing and theorizing the processes, contexts and products of the act of translation as well as the (roles of the) agents involved' (2002, p. 1). However, this definition should be seen from the interdisciplinary point of view of TS. This interdisciplinarity is evident in that TS borrows much from a variety of supporting fields.

A field that is of particular relevance in this research is the field of semiotics, defined by Saussure as 'a science that studies the life of signs within society.' (1974 [1916], p. 16). Semiotics examines both linguistic and non-linguistic signs, where linguistic signs are represented by verbal elements (i.e. written or spoken words) and non-verbal ones (e.g. photographs, graphs, drawing). Semioticians look for the systems which are based on possible signs. This examination involves different signs and everything that includes a specific meaning in society. A sign, according to Eco, is 'an x standing for a y which is absent, and the process which leads the interpreter from x to y is of an inferential nature' (1986, p. 2). In addition to semiotics, other disciplines that could be used by translators include comparative literature, computer science, linguistics, philology, and terminology.

This variety of disciplines has made difficult the formation of a single identity for translators.

Translators are often not sure whether translation is a trade, an art, a profession or a business. This is probably because the professional identity of some translators is derived mostly from their working experience and less from formal knowledge, while for others it is the other way around. This uncertainty is also reflected in the dichotomy between vocational training and academic training, with some translators taking a stand in favour of one or the other. Also, translators have constantly complained that translation is underestimated as a profession, especially compared to other established ones, like medical and physical science, or even other social sciences and art. In this research, both vocational training and formal academic training have an equal role to play.

The translation area I am about to research crosses the broad areas of intersemiotic translation (Jakobson, 1959[1996]), translation training (Kussmaul, 1995), multimodal translation (Remael, 2001), and translation process (Hartama-Heinonen, 2008). In particular, I am interested in the way the visual semiotic mode, and in particular images in print documents, are read and interpreted by undergraduate students of translation and the consequences that this has for their training in the translation of multimodal texts.

The term *mode* refers to the semiotic channel (e.g. words, sounds, images, colour and animation) we use to compose a text, while the related term *media* refers to the 'tools and material resources' (e.g. books, radio, TV) used to produce and disseminate (multimodal) texts (Kress and Van Leeuwen, 2001). The multimodal text is defined here as a text whose 'meanings are realized through more than one semiotic mode' (Kress and Van Leeuwen,

2006, p. 183). The meaning of this multimodal text is created by the juxtaposition of a variety of semiotic elements (written/visual/aural) on the same interface (piece of paper or screen), as opposed to the monomodal one, such as a print verbal paragraph.

This interdisciplinary approach is a difficult task for several reasons. Multimodal translation is not yet an established field of research; for instance, although Williams and Chesterman (2002) identify multimedia translation as an area of research in TS, they say nothing about a multimodal one. The interaction of the visual and the verbal have blurred the boundaries of translation processes and semiotics (Torop, 2007). However, translation schools mostly emphasize the verbal component of translation (Torresi, 2008).

1.2 Newer developments in translation studies

The concepts of creative translation and mediation are two theories that provide alternative and new ways to study TS. Additionally, widespread interculturalism has led to new practices in TS.

Fostering creativity in translation is a perspective that has recently gained new impetus (Cho, 2006). Creative translations will be considered here as those that are ‘creative extensions’ of the norms (Snell-Hornby, 1995), or ‘novel ways of encoding an old message [when translators] are forced to creativity because the means of the TL are not identical with those of the SL’ (Neubert, 1997, p. 19). Rendering neologisms from a source text (ST) to a target text (TT) is one such example where creativity is frequently used by translators. This notion of creativity will be discussed in relation to images as a means of stimulating visual thinking (see also section 2.4.3). For example, Van Meerbergen claims

that the translator 'has to find creative solutions within the linguistic constraints of the target language, taking into account the images as well as rhyme and space' (2009, p. 9). She also claims that these solutions may lead to 'changes in the textual relationship between the verbal and the visual text components' (Van Meerbergen, 2009, p. 9).

This type of relationship has led to a number of research practices; for example, Kussmaul (2005) links creative and visual thought and calls for the investigation of particular types of visual stimuli. Based on the same hypothesis, Tercedor-Sánchez et al. (2009) propose that the visualization and description of images from different perspectives help translators to trigger creativity.

Another theory that will be used in this research is based on the concept of 'translation mediation' (Hatim and Mason, 1997), which refers to a number of ways in which the characteristics of the ST appear in the TT. By employing this concept, the translator chooses from a variety of options to intervene in the translation process in distinctive ways so as to make the ST either visible or invisible to the TT reader (see also Figure 2.3).

A related issue that will be discussed later is the concept of translation ideology (Venuti, 1995). Briefly speaking, translators can potentially act as mediators who overcome the polarities created by their choices and facilitate the dialogue between the ST and the TT. The proposed approach to mediation in translation in this research is what I call 'verbo-visual mediation', referring to a number of ways in which the verbal, the visual and their interaction in the multimodal ST will appear in the multimodal TT (see also section 2.3.2). This new type of mediation will be juxtaposed with a number of related translation theories

and approaches, such as subtitling (Chuang, 2006) and verbal-visual interplay (e.g. Pereira, 2008; Pettit, 2007).

An area of new practices in TS is interculturalism. In order to understand translation and intercultural communication we could accept Risku and Pircher's argument that 'signs are not *primarily* or *solely* verbal or communicative' (2008, p. 158). The translatability of meaningful visual elements has been discussed by Torresi (2008), who argues that visuals, like language, convey cultural values and stereotypes, indexical and symbolic relationships. Also, there are cultures that may, or may not, depend on context, while the norms of visual composition may differ substantially across cultures. However, despite the foregrounding of semiotic elements other than language in the production of modern texts, the fact that 'most Western societies remain print dominated' (Hull and Nelson, 2005, p. 2) makes any effort to discuss non-verbal modes of communication a difficult task. Moreover, certain cultural connotations may be evoked by the particular usage of visual elements, such as typographic features. This process of translating brings into focus the issue of localization vs. internationalization, where a text is translated into different languages or adapting a product for a specific country or region also.

According to Gambier and Gottlieb, the localization of a text is an effort to 'adapt to the linguistic and cultural characteristics of the addressees, of the contents dealing with information, arts, training, etc.' (2001: xv). The extent and degree of adaptation depends on the requirements set by the commissioner of the translation. Internationalization will be found on the other end of the adaptation continuum, that is, the adaptation of the content will meet the addresser's needs. In both cases, Gambier and Gottlieb's (2001) 'content'

refers to both the verbal and non-verbal elements. They view this continuum as a dynamic process of translation which foregrounds the multisemiotic dimension of today's multinational communication. Such a manifold dimension of translation will be discussed in more detail in section 2.2.4.

1.3 New objects in translation studies

There is a widespread tendency towards the visual in TS. The image/text relation is not a new problem for translators, but it requires constant re-interpretation. Also, the turn to the visual has given rise to new objects of study. Two relevant theoretical developments are social semiotics and multimodality.

It has been argued that literacy habits in the late twentieth and early twenty-first century have undergone dramatic changes (Lemke, 1998; Jewitt and Kress, 2003; Jewitt, 2005). One of these is a tendency, among some educators, towards a more systematic approach to visual education, multimodality and literacy practices, where the dominance of the verbal modes of communication has been challenged by non-verbal modes. Recently, there has been an interest in problematizing the verbal/non-verbal divide in translation. In this research, verbal communication is considered to be any written or spoken word, while non-verbal communication consists of photographs, images, graphics, gestures, colour, etc. Neather argues that 'a far greater awareness of the ways in which differing verbal and visual imperatives shape translation is needed' (2008, p. 238).

The growing interest in multimodality as a theory of communication has given a new impetus to TS. In this context, the role of the non-verbal elements of the multimodal text to

be translated has become a growing field of study attracting the interest of translation practitioners, teachers and researchers (Gottlieb, 2005; Kussmaul, 2005; Van Meerbergen, 2009). In fact, most texts are multimodal rather than monomodal (e.g. texts consisting only of written elements), in the sense that the written element is presented using a particular typeface or calligraphy.

Today, although translators are faced with the new challenges concerning the visual-verbal interaction, little work has been done in TS to meet them. These challenges include, according to Pietro-Velasco et al., ‘adapting or providing captions, transcripts and audio descriptions within the multimedia formats they work with’ (2008, p. 6). When referring to Canadian television broadcasting, Desjardins (2008) regrets that little work has been done in TS to examine the ways in which image and word interact on newscasts. In film studies, Baumgarten explains, TS have de-emphasized ‘the role of the interplay between visual and verbal interaction in establishing the meaning of a film text, and how it may influence both the process of film translation and the finished product’ (2008, p. 8). These authors suggest that there must be a way to discuss the meaning of non-verbal elements in relation to translation.

Van Meerbergen (2009) argues that a fuller examination of multimodal ST and TT in translation requires an analysis of the interrelations between visual and verbal components. This kind of analysis calls for an integration of theories and methods from a variety of disciplines which are often considered to be outside the scope of interest of TS. Baumgarten (2008), in her analyses of the interaction of visual and verbal information in film texts and film translation, adopted an interdisciplinary approach to TS by integrating

linguistics, visual analysis and cinematic narrative. Her acknowledgment that these disciplines at first sight seem disparate is corroborated by a widespread view that TS are not commonly combined with other disciplines.

Yet, it is not easy for translators to realize this when, as van Leeuwen observes, until recently non-verbal elements such as 'typography [were] not considered a semiotic mode in its own right' (2006, p. 141). Moreover, Torresi argues that 'the term 'translation' is usually defined as a verbal-only practice' (2008, p. 64). Thus, it is a challenge to the traditional view of TS to expand the meaning of translation to cover non-verbal modes of expression. This difficulty is not unfounded since there are still questions such as: 'Up to what point can we say that visual information in the image shapes the translation?' (Pettit, 2007, p. 177). Pettit does not hesitate to argue that there may be ways in translation where one strategy could be preferred over another in the presence of non-verbal elements. Although she specifically refers to subtitling, this approach will be shown to have applications in the translation of print multimodal texts.

This type of multimodal research has started to be integrated in the discipline of translation (Kaltenbacher, 2004). Linguists have begun to realize the various intersemiotic relations between certain verbal and non-verbal aspects, such as the translation of humour in film and comics. The relationship of humour and pictures, as also observed by Kaindl (2004), is an aspect that has been largely neglected in TS. Just like 'linguists have realized that purely monomodal discourse does not exist' (Kaltenbacher, 2004, p. 194), so translators should realize that limiting the translation to the verbal component alone may miss a vital part of the message, or at least restrict the repertoire of semiotic elements available to the

translator when attempting to translate the message. This view is also shared by Cosculluela, who states that TS 'cannot be studied in a satisfactory manner from the point of view of linguistics alone' (2003, p. 116). A different point of view is provided by Séguinot (1994) and Risku and Pircher's (2008) argument that graphic design is an issue to be taken into account in translation.

Multimodal theories of communication have been proposed where meaning does not reside in language alone. Kress and Van Leeuwen argue that reading should bear in mind 'the semiotic resources of communication, the modes and the media used, and the communicative practices in which these resources are used' (2001, p. 111). In their theory, the concept of 'semiotic mode' is based on social semiotics (Halliday, 1978, Van Leeuwen, 2005), which investigates human signifying practices in specific social and cultural circumstances. Semiotic modes are systems for meaning-making, or 'media' (e.g. speech, writing and images) and can include visual, verbal, gestural and musical resources for communication. Their theoretical model, called systemic functional (SF) – multimodal discourse analysis (MDA), is based on Halliday's (1978) three metafunction principles which were used by Kress and Van Leeuwen (2001) to study the visual as an integrated system of communication. In this system all meaning-making modes are treated equally when assessing their contribution to multimodal texts. Briefly speaking, the ideational metafunction describes the representation of the world, the textual deals with the ways in which texts are made coherent and are related to their context, and the interpersonal refers to the social and identity relations enacted and played out in texts.

Premised on Moriarty's claim that 'semiotics provides a useful theoretical foundation to apply to visual communication because it helps unlock the complexities of visual communication' (2002, p. 26), this research examines if it is possible to apply semiotics to translation from a multimodal perspective. Thus, like Sütiste and Torop, who argue that 'one and the same verbal text may exist within culture simultaneously as a verbal, multimedial, audiovisual, or audial text' (2007, p. 203), I start from the premise that it would be impossible to ignore the relationship between them.

The terms multimodal and multimedia used here need some clarification. Some authors (e.g. Lauer, 2009; Remael, 2001) have made clear the distinction between these terms by relating the former to a public/industry context and the latter to the academic field. For the purposes of this research, the term 'multimodal semiotics translation' (MST) should be seen as incorporating both a multimodal and semiotic aspect. The difference between multimodal and multimedia is mostly a difference between 'modes' and 'media'. Another way to distinguish them is to place the mode on the 'content' side and the media on the 'expression' side of the meaning-making process. Moreover, while mode could be seen as involving issues of design and process, media is about production and distribution.

In order to contextualize multimodal and multimedia in this research, it is also important to realize that 'although media and modes are different from each other, the media we use affect the ways in which we can realize meaning through various modes' (Lauer, 2009, p. 227). For example, the mode of writing in the medium of the book interacts with the writer and reader in a way that differs when the medium is the screen. If this is the case, it is not a coincidence that most proofreaders print the electronic texts before they start proofreading

them. In this thesis, the reading of multimodal texts is characterized by the reader's effort to understand different modes in making meaning of texts.

For the purposes of this research, I adopt the term 'multimodal text/approach' because 'it is more theoretically accurate to describe the cognitive and socially situated choices students are making in their [translations]' (Lauer, 2009, p. 225). Additionally, the term being more familiar within academia, and coupled with the fact that the texts used in this research with the students are print documents, it was considered more appropriate to use the term multimodal to avoid misunderstandings with the term multimedia, which is more associated with screen-based texts.

1.4 Implications for practitioners and trainers

Bearing in mind the discussion thus far, practitioners and trainers of translation are faced with a new relationship between translation and literacy, within the new field of 'visual literacy'. A very basic definition of visual literacy is 'the ability to understand and produce visual messages' (Bleed, 2005, p.5). Based on Bleed (2005), visual literacy is defined in this thesis as a group of competencies that a translator should develop in order to interpret visual messages when translating multimodal texts into another language.

From a translation pedagogy point of view, the visual and the verbal, according to Sütiste and Torop (2007), have also blurred the boundaries of translation processes and semiotics. It could be argued that multimodal translation is governed by semiotics, rather than the more narrowly defined operations of translation. Also, language faculties offering translation are not providing adequately if students have not been prepared in semiotics.

This blurring highlights the interdisciplinary nature of training for would-be translators, which it is argued may entail new skills for the ‘multimodal semiotics translator’, a term referring to the translator who adopts both a semiotic and multimodal approach to translation. According to Torresi, ‘a translator who is aware of the importance of non-verbal elements, and the resource they represent for translation, proves a more reliable team-worker and produces better target texts’ (2008, p. 70). Relevant evidence is presented in the next sections. In more pragmatic terms, translators that gain more semiotic skills could persuade clients that translators are not just ‘word-mongers’ but text- and meaning-makers.

For similar pedagogical reasons, Tan urges translation teachers to follow ‘a broader road of translation education’ (2008, p. 590). However, this approach to education may not be easily integrated in TS since translation pedagogy has shown, at least in technical communication, a ‘strong focus on the verbal in translation training and practice...ignor[ing] the use of images and other media’ (Risku and Pircher, 2008, p. 162). Although technical translation is abundant in non-verbal elements, it has turned a blind eye to the training and practice of using non-verbal elements, in other words, to visual literacy. Representative examples of this type of training are provided by Tercedor-Sánchez and Abadía-Molina (2005) and Tercedor-Sánchez et al. (2005a, 2005b), who have integrated non-translation activities, such as describing images and producing original text, in their curriculum.

In order to develop the necessary key concepts related to the role of the visual in the translation of multimodal texts there is a need for even more empirical studies (Chuang,

2006; Van Meerbergen, 2009). The next sections include an example analysis of a multimodal approach to translation. In fact, this issue will not be resolved from a purely theoretical perspective, but requires actually putting students/professionals into an MST situation and exploring what happens. Therefore, it is my intention to respond to this need by offering an integrated approach to analysing images in the translation of multimodal texts from a pedagogical and professional viewpoint.

The change of focus in TS (Alves, 2003; Gerzymisch-Arbogast, 2005), from seeing the TT as a static product to looking at its process of translation, has been a major development in the training of translators. Innovative teaching projects (Tercedor-Sánchez and Abadía-Molina, 2005; Tercedor-Sánchez et al., 2009) involving multimodal text production and semiotic analysis of images have shed new light on translation education. Similarly, Torresi (2008) argues that translators should be ‘text-makers’ and able to deal with issues such as layout and typography in producing a TT in a multimodal format. The importance of understanding the role of multimodal texts in TS has also been raised by Van Meerbergen (2009), who claims that certain concepts such as ST and nationality can be problematic to deal with in producing the translation of multimodal texts. In the context of translating texts consisting of a high number of visual elements, the notion of creativity in relation to the visual in translation has gained new impetus (Cho, 2006). The creation of multimodal texts involves a number of people with different skills, such as photo-editors and graphic designers, in other words, stakeholders. In translation, these experts are supplemented with other stakeholders, such as the person commissioning the translation and the publishing editor.

1.5 Motivation for choosing this particular topic

I was motivated to conduct this research in translation studies, with a focus on image analysis and with close reference to semiotics and multimodality (see section 1.3), by my professional status (an army officer and translator) and academic experience (undergraduate and postgraduate studies in relevant areas). Both of these features gave me the necessary stimulus and laid the foundations for this interdisciplinary research.

As an army officer, I have written a language coursebook on English military terminology in the field of English for Specific Purposes (Damaskinidis, 2008) and translated several military English multimodal texts into Greek. As a writer of a language coursebook full of multimodal texts, I realized, for the first time, that this type of text production differs significantly from writing an essay in prose form. For example, I often spent half an hour (or more) trying to choose the proper photograph to accompany a single section or even a paragraph. The main difficulty lay in matching as many verbal elements as possible to the non-verbal elements of the accompanying photograph in a meaningful way. In addition, there was the issue of the way I perceived the verbal – non-verbal interaction and the way that it will have been perceived by the intended audience.

As a translator, each time I translate an English multimodal text into Greek, I find it tricky to compare the two versions, because while the English verbal element has been transformed into another language (Greek), the non-verbal remains the same. That is, the two texts are not totally comparable, at least not in the way the two verbal parts are, which makes the assessment of the final product problematic. This concern was also shared by some fellow translators, who experienced the same problem when translating multimodal

texts. They stated that they are often given STs devoid of some of the non-verbal elements, such as a photograph, and sometimes in a different layout. For example, verbal information that originally appears in a box or in a tabular format was given to translators as single paragraphs. While these translators had already been told that the verbal elements were originally presented in a different format, they did not express any concern to the commissioner of the translation and started translating as if these verbal elements had been originally presented in a verbal-only context.

As far as my academic background is concerned, in my undergraduate (BA (Hons) in Humanities with English Language) and postgraduate studies (MA in Education), I have taken several courses and modules which dealt with the area of verbal-visual relations. The knowledge I acquired paved the way for an MA in Translation Studies, which culminated in the submission of a dissertation focusing on the relation between verbal and visual elements in translating multimodal texts (Damaskinidis, 2010). In brief, by adopting a systemic-functional approach to multimodal discourse analysis, I set up a small-scale action research study which involved recent graduate students from an English language and literature department. Action research is one of the most common ways for teachers to collect data and use those data to investigate and develop their own teaching skills (Pennington, 1992). In addition, according to Cravo and Neves (2008), it is a means for researching translation in general, or specific fields such as translator training and audiovisual translation.

The problem of identifying an adequate body of relevant literature, and in particular experimental studies in translating multimodal texts, the challenges action research posed

to me as a researcher and to the participants, and the finding that the image is a potential translational factor, provided the stimulus to progress to doctoral-level research.

1.6 Initial research statement

The discussion in the introduction thus far has highlighted several theoretical, methodological and practical factors that may affect the translation of multimodal texts. In order to make my study compatible with the constraints imposed by the doctorate in the education programme, I will examine:

- (1) How Greek undergraduates perceive the role of visual literacy in the field of translation.
- (2) Greek undergraduates' mediations between semiotic elements when they translate an English multimodal text into Greek.
- (3) The techniques that are effective when teaching Greek undergraduates how to translate English multimodal texts into Greek.

The discussion in the following literature review will cover these three issues, that is, the wider role of visual literacy in translation, the role of mediation in understanding the possible readings of visual and verbal elements when translating multimodal texts, and teaching techniques in translating the verbal part of multimodal texts. For a fuller discussion of these research questions, see section 2.5.

2. LITERATURE REVIEW

2.1 Conceptual framework

As a preface to the literature review it is necessary to outline what I consider to be the interdisciplinary movement between visual literacy, semiotics, and translation. As shown in Figure 2.1, these three areas are not triturated in an ‘interdisciplinary grinder’, but are rather fused together, and where their boundaries are met, their combination could provoke new and fruitful research questions.

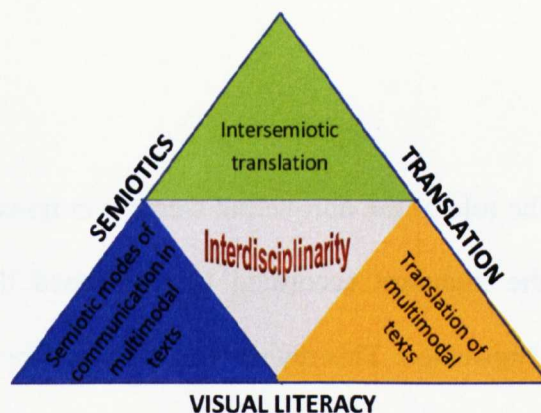


Figure 2.1 The interdisciplinary triangle of semiotics, translation and visual literacy

Figure 2.1 shows how the three distinct areas of semiotics, translation and visual literacy provide a theoretical framework under which they provide opportunities for theoretical and empirical investigations. Each area will not be discussed separately but in relation to the two others, as illustrated by the different colours and the related issues inside the three triangles. For example, the translation of a multimodal text involves the examination of the way the semiotic modes (e.g. pictures and words) that compose this text are used to communicate its meaning, and how the intersemiotic relations of these modes affect the

translation of the text. Moreover, these fields are brought together, or “glued”, so to speak, by means of an interdisciplinary approach where the points of one field abutting the two others may provide the stimulus for further combined examinations. The emergence of the interdisciplinarity between semiotics and translation studies has already been shown by Cosculluela, who argues that ‘the multiple dichotomies can be boiled down to a number of principles ... partaking of the same semiotic logic.’ (2003, p. 131) My review will broadly focus on semiotics and translation and more specifically on intersemiotic translation, and how the concept of visual literacy could direct the discussion of the translation of multimodal texts and the various semiotic modes of communication involved in these processes.

In order to contextualize the role of the non-verbal element in translation, I will begin this chapter by considering the literature according to two broad theoretical frameworks: multimodal semiotics and translation. This review will also involve a survey of SF theories in translation and translation as a form of visual literacy and multiple literacies practice. Visual literacy can be broadly defined as the ability to read and write with images. These concepts are needed to provide a theoretical framework for the third area of my study, which is centred upon the investigation of non-verbal elements, and in particular the image, as a potential factor in translating. In this initial investigation I will develop Hatim and Mason’s (1997) concept of mediation and how it could be expanded to cover visual elements. Hatim and Mason (1997) argue that translators are not mere communicators of language, but professionals who take into consideration all meanings that may contribute to communication. I will then consider the overall impact of the image on translation and on the distribution and integration of the semiotic resources in translation.

2.2 Multimodal semiotics and translation

This research incorporates a new branch of semiotics called ‘multimodal semiotics’ (Unsworth, 2008), which deals with how people describe semiotic resources, what they say and do with visual means of communication and how these can be interpreted. Multimodal semiotics was applied to translation through the theoretical and conceptual tools illustrated in Figure 2.2, that is, the SF perspective consisting of three components, and MDA.

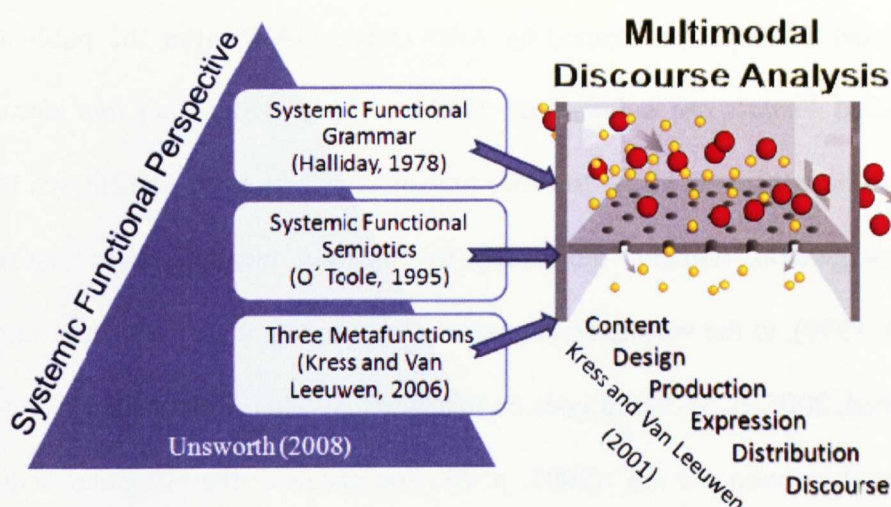


Figure 2.2 A multimodal semiotics approach to translation

The impact of the image on translation as a whole, within the broader multimodal semiotics framework, will lead the discussion to the new requirements and needs for training translators to deal with multimodal texts in their everyday practice.

I begin, then, by situating my research in the broader field of visual literacy according to the New London Group (1996) concept (see section 2.2.1). Following that, I present semiotic approaches to translation, and in particular, developments on Jakobson's (1959[1966]) concept of intersemiotic translation (see section 2.2.2). The creation of

meanings is then explored in my study through the three metafunctions principle (Kress and Van Leeuwen, 2006) (see section 2.2.3). Afterwards, I present a new multidimensional approach to TS that has redefined the boundaries of translation (see section 2.2.4). Finally, I describe how the practice of translation involves a variety of different literacies that translators could draw upon when dealing with multimodal texts (see section 2.2.5).

2.2.1 The emergence of visual literacy

The term ‘visual literacy’ was coined by John Debes (1968) after the publication of a newsletter called *Visuals are a Language* (Debes, 1967). More than four decades later, there seems to be confusion about the meaning of visual literacy. Definitions may range from the very general, namely ‘the ability to construct meaning from visual images’ (Giorgis et al. 1999), to the very specific, namely ‘screen language as the new currency for learning’ (Bleed, 2005, p. 5). Bleed goes on to argue that when we consider new topics ‘we are often biased by who we are’ (2005, p. 6). For instance, the computer scientist may approach visual literacy from the perspective of technological developments, the artist may think of visual literacy as an opportunity to advance artistic expression, and the military officer may consider visual literacy as a means to analyse aerial photographs that will be used to make battle damage assessments. It would therefore be difficult to find a single definition of visual literacy that would reflect the use made of it by these three users.

Similarly, translators could approach visual literacy in such a way that would meet their own needs. Following the definition of visual literacy provided here (see section 1.4), I propose that the translators of multimodal texts should think of visual literacy as the ability

to interpret verbal and non-verbal semiotic elements for intentionally communicating the ST culture to the TT audience.

It is clear, therefore, that multimodal communication would require a systematic expansion of the concept of literacy, such as the one made by the New London Group (1996) through the term *multiliteracies*. In this group, scholars from various fields – education, linguistics and sociology, among others – discussed the present state of literacy and possible directions for the future. The focus was on ‘the changing word and the new demands placed on people as makers of meaning in the changing dimensions of our community lives – our lifeworlds’ (Cope and Kalantzis, 2000). I will survey the multiple literacies literature in further detail below. Here, however, I shall focus more closely upon some theoretical aspects of visual literacy.

Until recently, Lemke (1998) claims, literacy assumed a transparent relation between the signifier and the referent. A similar transparency was also assumed between language and intended meaning, which privileged linguistic communication over non-verbal forms of communication and expression. He also claims that twentieth-century conceptualisation of what theories and teaching of literacy entail has not moved away from reliance on logocentric theory. That is, while children are learning to distinguish different semiotic resources (e.g., drawing from writing) they are only taught how to use written language. In teaching other modes, such as singing, drawing, or mime, they are not taught about the traditions and possibilities for combining these with writing and with each other. Additionally, the teaching of the four basic literacy skills (reading, writing, speaking and listening) revolved almost exclusively around verbal language. This dominance of verbal

language in the field of visual communication has also been pointed out by Moriarty (2002).

Similarly, Love (2008) argues, on the basis of the proliferation of multimodal texts within the new communicative landscape, that in the twenty-first century the traditional notion of literacy as consisting of the 'four basic skills' is inadequate. If we accept, then, that there is a new type of literacy that is not (solely) verbal in orientation then we need to adopt a systematic approach to the study of visual education (Jewitt and Kress 2003). Tan (2008) has also proposed a model of translation education where the development of language teaching and learning is oriented towards five basic skills, listening, speaking, reading, writing and translating. However, although he refers to a holistic model, nowhere in his paper does he mention any need for competence in the analysis of non-verbal elements. Even if such a competence is implied, or simply included in the competencies listed, the lack of direct reference to the ability to analyse non-verbal elements can be read as indicative of the (low) value attached to visual literacy in translation training.

In contrast, a movement towards independence of the visual as a literacy skill is proposed by Avgerinou and Pettersson (2011), who argue that visual literacy is holistic, must be learned, is not universal and often needs verbal support. Although researchers and practitioners disagree and do not present a common definition of visual literacy, they cite a number of researchers who agree with their argument that visual literacy exists. Visual literacy is also widely referred to as either a skill, a competency or an ability. Their holistic view of visual literacy is sometimes discussed with reference to the ambiguity of non-

verbal modes of communication in contrast to verbal and technical descriptions, which must be as unambiguous as possible.

Making visual language as unambiguous as possible and clearly understood requires training. It has been shown that competent school students had problems with understanding and analysing pictures (e.g. Cope and Kalantzis, 2000; Avgerinou and Pettersson, 2011). Moreover, since visuals are cultural products shared by individuals, their understanding is dependent on the individuals' access to the culture of production. Unless they are properly analysed and discussed, it is suggested that these visuals will not be properly understood and will remain ambiguous. According to Avgerinou and Pettersson (2011), a picture that is used for information purposes, if supplied with a caption, will ensure that the information conveyed is clear and unambiguous. However, it is difficult to take this claim at face value because the interaction between the verbal caption and the non-verbal elements of the picture, as I shall demonstrate, may interact in diverse ways. This diversity may become quite complicated and even contradictory in the case of translations where the translator is confronted with two verbal elements, the ST and the TT. This complexity will become even more difficult to deal with in the case of multimodal texts where the caption of the picture is integrated into a constellation of different non-verbal elements.

Therefore, such multimodal texts could be problematic with regard to the literacy they require and may thus demand training or grounding in the relevant concepts. These developments therefore have significant implications for students of translation who are confronted with multimodal texts that they have not been systematically taught how to

produce or consume, let alone translate. If we take as an example the translation of news print, the training in this genre nowadays is expected to differ from how it was in the past.

This training is expected to contradict traditional ‘translation [training] ... [that] tends to focus on the verbal dimensions of the text’ (Torresi, 2008, p.64), where the term ‘translation’ is usually defined as a verbal-only practice without covering non-verbal modes of expression. In the case of the change in the style of newspapers from prose to visual narrative, where the photograph is the central storyteller (Caple, 2008), translation trainers and trainees must approach this visual (the photograph) as a potential translation factor. I argue that this focus on the visual aspect of translation training may require the integration of teaching techniques that are not verbal-only. For instance, Tercedor-Sánchez et al (2009), prior to giving their students multimodal texts to translate, gave them the images (devoid of the accompanying verbal elements) to describe in their own native language (see section 2.4).

The next section takes a closer look at some theories that discuss semiotics and the implications of semiotics for translation.

2.2.2 Semiotic approaches to translation

In his exploration of the way translation could be positioned within the space of multisemiotic and multimodal texts, Desjardins (2008) argues that, within TS, intersemiotic transfer (Jakobson, 1959[1996]) is an area that should be further extended and investigated. Such a development, according to Sütiste and Torop (2007), is a sign of methodological innovation in translation, suggesting a step toward semiotics. Moreover,

they argue that semiotics and translation can be subjected to a methodological synthesis leading to 'semiotranslation'. This section outlines these two theories, namely intersemiotic translation and semiotranslation, which will be used in my thesis to discuss semiotics and translation.

Translators' attempts to interpret or translate verbal signs were initially classified by Jakobson as follows:

(1) Intralingual translation or *rewording* is an interpretation of verbal signs by means of other signs of the same language.

(2) Interlingual translation or *translation proper* is an interpretation of verbal signs by means of some other language.

(3) Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of signs of non-verbal sign systems (1959[1996], p. 233, emphasis in original).

For Jakobson (1959[1996]), then, semiosis is a synecdoche for the continuous process of translation. A preoccupation with interpretation is also evident in its reiteration three times in his typology. However, a problem with his typology, at least with regard to my research, is the unidirectional reference to the rewording, translation and transmutation of *verbal* signs, a directionality that implies a superiority, or priority, over non-verbal ones. This criticism is also shared by Cosculluela (2003), who adds the further point that any verbal

sign also has a non-verbal dimension. In fact, most common signs, notes Cosculluela, reflect a 'balance between verbality and non-verbality' (2004, p. 114).

Acknowledgement of the necessity of a balance is also evident in Pereira's (2008) analysis of illustrated books as a form of intersemiotic translation. She places the term 'intersemiotic' in parenthesis (also included in her article's title) because intersemiotic translation is carried out in ways similar to interlingual translation, though it relates more to the difference of medium. Pereira observes also that this type of book is the re-creation of texts in a visual form, where 'pictures can translate words in the same way words translate words' (2008, p. 108). However, the traditional contradiction between pictures and words makes Pereira's equation (at least in translation studies) not so absolute. For example, as I have already shown, the incorporation of the system of the visual mode 'into practices – and theories – of translation still encounters strong resistance' (Torresi, 2008, p. 63).

A breakthrough in TS that overcomes the dichotomy between the visual and verbal mode of expression was made by Hartama-Heinonen (2008), who extends the concept of communication beyond purely linguistic phenomena to the analysis of whole texts or discourses, involving combinations of different semiotic modes (verbal, visual, acoustic). The inspiration for this advance was the SF approach to communication, which employs the concepts of multimodality and visual grammar (Kress and Van Leeuwen, 2006) that will be discussed in more detail in the next section.

A first attempt to combine semiotics and TS was made by Gorlée (1994) with her pioneering work on Peircean translation theory. She argues that a semiotic approach could build upon a solid semiotic theory or method. A problem in combining the two disciplines lies, according to Gorlée, in the way they approach each other. While semiotics proceeds from theory towards practice, TS proceeds from practice towards theory. It is common in the literature to introduce semiotic approaches to translation through the eyes of semioticians, or vice versa. Taking a step forward, I aim to explore what unites, or divides, semiotics and translation in terms of common objects of research. This exploration involves the multimodal nature of texts, the dichotomy or continuum of the verbal and non-verbal, and the co-existence, interaction and confrontation of the different semiotic systems.

The relationship between semiotics and translation is further tightened by the concept of semiosis, which is defined by Peirce (1965) as any form of activity, conduct, or process that involves signs, including the production of meaning; in other words, semiosis is a sign process. An example of semiosis is the sign of the red colour in the traffic light that stands for the command 'stop the car'. Stecconi (2004) expanded on this relation and introduced the concept of '[t]ranslation semiosis as the form of semiosis that is specific of translation' (2004, p. 471). Moreover, he argues that semiosis is a central process of translation. A central feature of translation semiosis, Stecconi goes on, is that 'there is no translation if the target sign does not 'speak on behalf ' of the source sign' (2004, p. 482). Taking into account that Stecconi does not differentiate between verbal and non-verbal signs, a visual sign in the ST may have a counterpart verbal sign in the TT and vice versa. Therefore, the

production of meaning in translation semiosis in both the ST and the TT could be realized by any type of sign and this is crucial in the translation of multimodal texts.

According to Saussure (1974 [1916]), a sign consists of two parts, the 'signified' (a concept or an object) and the 'signifier' (a sound or image that is attached to the signified). The actual object in the world that is related to the sign is called the 'referent'. For example, the letters 'b-a-b-y' is a verbal signifier that is attached to the concept (signified) of a very small human who cannot walk on his/her feet or talk. An actual baby that is seen crawling is the referent. Such a situation in which something (here a baby) functions as a sign, that is semiosis, according to Petrilli,

cannot subsist without translation for semiosis is a translation-interpretation process.

The role of translation is fundamental in the constitution itself of the sign, both verbal and non-verbal, and in the determination itself of meaning (2004, p. 312).

This semiotic approach to translation that does not limit its focus to verbal language and encompasses non-verbal elements is particularly relevant to the translation of multimodal texts which are characterized by the interaction between these elements. Such a close relation between translation and semiosis is also made by Stecconi (2004) who claims that semiosis is a central process of translation. Although he argues that translation semiosis is a special and identifiable form of semiosis, he issues a warning that it is semiosis that should be used to explain translation and not the other way around.

Such a synthesis between translation studies and semiotics could be made possible, according to Sütiste and Torop (2007), if we use Peirce's (1965) concept of semiotranslation. Gorlée (2004) argues that semiotranslation is an important concept for professional translators because, among others, it will help them to identify a number of associations and combinations with reference to the interactions between language and non-verbal sign systems (intersemiotic translation). Semiotranslation does not focus on dualities but on things being seldom black and white. It also overcomes conventional dichotomies in TS, such as translatability and untranslatability, equivalence and non-equivalence or faithfulness and unfaithfulness. The translator could come across the constant changes of meaning created by these dichotomies through interpretation.

This type of interpretation, according to Hartama-Heinonen (2008), leads to the translator being visible. This visibility becomes most evident in the cases where the translation choice is closer to one end of a polarized situation. In other words, the translator intervenes in the translation process to mediate a particular meaning (see section 2.3.1). In the translation of multimodal texts, the co-occurrence of verbal and visual semiotic elements creates complex mediation cases where the translator may appear visible, in terms of the verbal, and invisible, in terms of the visual, or the other way around (see section 2.3.2). Moreover, even in cases where the visual remains the same in the TT, a translator's TT verbal choice, as a result of interpreting the visual in a specific way, may make the translator visible because of the absence of a corresponding ST verbal element.

The justification of translators' verbal choices by reference to a semiotic interpretation of visuals could be related to Hartama-Heinonen's claim that the Peircean paradigm does not

‘introduce novel ideas but instead offers novel combinations of earlier ideas’ (2008, p. 36). Given the fact that multimodal texts were also translated in the past, the Peircean approach could help translators re-assess previous strategies and harness all the semiotic elements of these texts in their routine translation process. The relatively dynamic nature of MST, where the translators act on probabilities, weighing gains against losses, is a characteristic example of Peircean semiotranslation. Both Peirce (1965) and Jakobson (1959[1996]) equate interpretation with translation.

In the context of my research, I will follow Moriarty (2002), who in her attempt to combine semiotics and visual communication employed Peirce’s approach to semiotics. She argues that Peirce’s semiotics

besides the arbitrary ... allows for other systems of signifying, such as mimesis and evidence (clues and cues) which are fundamental to visuals ... [and] focuses on the concept of interpretation which is key to making sense of visuals (Moriarty, 2002, p. 21).

2.2.3 Systemic functional theories in multimodal translation

In this section, I briefly present the systemic-functional (SF) linguistics theory developed by Halliday (1978) and extended by other researchers (e.g. Kress and Van Leeuwen (2001, 2006), Jewitt and Kress (2003), Lim (2004) and O’Halloran (2008)) to provide the theory for the investigation of semiosis involving language and visual images. Although SF linguistics was originally designed to deal with the semiotic resource of language, it has found several applications in other semiotic resources.

Drawing on the communicative dimension of semiotics, and in relation to the study of social meaning and social action, a new branch of semiotics is called 'social semiotics'. According to Van Leeuwen, 'social semiotics is a form of enquiry. It does not offer ready-made answers. It offers ideas for formulating questions and ways of searching answers.' (2005, p. 1). While semiotics deals mainly with the systematic study of the systems of signs, social semiotics also includes the study of the uses people make of signs in specific social contexts. These contexts may be governed by rules or best practices that people will have to use if they are to meet specific needs and interests.

Halliday (1978) introduced a social semiotic view of language to study the way people use social resources for communicating meanings. One of Halliday's (1978) most influential contributions in social semiotics theory has been the three metafunctions principle (see section 1.3), which focuses on the study of social meaning-making practices of all modes. These practices are not examined in isolation or in a vacuum but in certain contextualized situations where all semiotic modes derive and construct their meaning in a given (sub)community. These developments have enabled researchers to draw on social semiotics and develop a 'grammar' for all semiotic modes. Macken-Horarik demonstrates how 'the development of a grammar for multimodal text analysis is a pressing task – not least within literacy education – [in] the field in which I work' (2004, p. 24). Such a grammar for the visual mode of multimodal texts is employed in the context of MST in this study.

I will use Kress and Van Leeuwen's (2006) concept of 'visual grammar' which is based on the idea that pictures having same kind of regularities with words and sentence syntax.

They claim that by using this visual grammar, we could analyze images and their relationships to words. That is, pictures visualize and conceptualize a story by including activities, which have a certain purpose, and give information about the relationship of the characters or things appearing in picture-based stories. This grammar is about how meaning is constructed in visuals and what meanings are socially generated by reading these visuals.

Of particular interest is their argument that the arrangement of elements in an image are governed by the same rules that apply to the ordering of linguistic elements in a written sentence. This approach has given rise to visual social semiotics (Jewitt and Oyama, 2001). Kress and Van Leeuwen (2001) have also applied this approach to complement the multimodal exploration of the semiotic landscape, where particular modes of communication are examined in their own context and in the environment of the surrounding modes of communication. Following the argument about the function of the modes of communication, the translator examines the internal organization of an image that serves to communicate a certain interpretation and a certain kind of interaction between the elements in the image and between the viewer (i.e. the translator and the TT readers) and the elements in the image.

A similar multimodal approach is also employed by Van Meerbergen (2009), who integrates Kress and Van Leeuwen's (2006) work on visual grammar into a descriptive model for the translation analysis of picture books. Based on the assumption that the similarity between language and image is not accidental, and on an analogy between Halliday's (1978) three communicative metafunctions for verbal communication and Kress

and Van Leeuwen's (2006) visual communication, Van Meerbergen (2009) applied the concept of a grammar of visual representation to analyse the translation of picture books. She examined how verbal and visual interactions in these books are used to address the reader on an ideational, interpersonal and textual level. She combined an analysis of visual and verbal means of expression in order to examine how the co-presence of ST verbal elements and pictures and TT verbal elements interact in the TT. A similar analysis could be applied to the translation of a multimodal text published in a newspaper, where the ST would not appear in the TT (see section 4.1.10).

In response to these new developments in grammar, analytical frameworks have been developed that demonstrate some approximate correspondence between visual resources and linguistic systems such as speech acts, mood, and person. Such frameworks have been developed by Kress and Van Leeuwen (2001, 2006), Harrison (2003), Macken-Horarik (2004) and O'Halloran (2008), who employ SF linguistic models and an MDA perspective to analyse language and visual forms. Yet, this SF-MDA perspective has been met with some criticism. Sidiropoulou (2006), for example, argues against the readiness with which a language-oriented theory is applied to the description of non-verbal semiotic resources. She also points out that SF-MDA is based on the assumption that Hallidayan theory is readily applicable to a range of multicultural and multisemiotic texts. In addition, she argues that the semiotic interplay of meanings should also be looked at in a holistic way and not only by analysing their modes separately. Although Sidiropoulou does not dismiss this perspective altogether, she claims that the notion of a universal theory of language, which SF-MDA is partly based on, is rather problematic and needs to be addressed by the researchers working in this field.

As Kress and Van Leeuwen (2006) have argued, multimodal texts function in a non-linear way, in which readers follow their own 'reading paths' to negotiate the various elements on the page. They also argue that texts 'impose a paradigmatics' on the reader in contrast to more traditional forms of linear text. Therefore, it might be difficult for the readers who do not follow the same reading paths to come to a consensus over the reading and interpretation of the same multimodal text. What Kress and Van Leeuwen (2006) postulate is a distinction that should be made between visual grammar as a theoretical model for the purposes of semiotic analysis and a descriptive model of an actual set of interpretive processes carried out by viewers of images. Therefore, it is a matter of whether the readers of multimodal texts know and use these models.

For instance, the information that is placed on the left of the page is considered to be 'old' or 'given' while the information on the right of the page is 'new' information (see the discussion on Table 3.3). As long as two viewers are aware of this rule, the information will (most likely) be interpreted in the same way by both of them. However, there is clearly no single linear way of reading a complex image. The question in the analysis of multimodal texts is whether the order in which the various elements are combined has a determining effect on the overall interpretation.

According to Baumgarten (2008), this type of analysis of multimodal texts within the SF paradigm has focused on the visual aspects, disregarding the accompanying verbal information and the potential verbal-visual interactions. This observation could be adduced in support of Smith's (2008) argument that there has been little research into the implications of visual aspects of the SF approach in translation. However, the relevant

body of literature is growing fast; for instance, Séguinot (1994) issues a warning to translators to take into account various non-verbal aspects. She describes how the excessive use of white space employed by graphic specialists creates a layout which breaks up units of text, leaving an incoherent message, or how a particular typographic feature (e.g. Cyrillic letters) may evoke certain cultural (Slav) connotations. This warning is in line with Risku and Pircher (2008), who argue that the layout helps the translator to establish a better picture of the ST and to deliver important constraints for the creation of the TT.

Nevertheless, such a freedom of choices (i.e. use of layout or typography) should be treated with caution, especially in cross-cultural translations. For example, in the area of intercultural technical communication, Risku and Pircher (2008) argue that the layout of the ST may impose certain constraints for the creation of the TT, because the client wants to keep as close to the original layout as possible, or because the layout is handled by a graphic designer who is not familiar with the TT. Sontag (1999) refers to ways that Chinese cultural realities in relation to photographic culture in many ways contrast with *westernized* ones. Smith (2008) also argues that the left-right organisation is limited to those cultures where the writing system moves from left to right. Thus, great care should be taken when applying Kress and Van Leeuwen's (2001) left/right orientations and given/new information to the different reading paths of East Asian cultures. But even in Western cultures, such orientations may not always work. Sidiropoulou (2006) encountered many difficulties when she tried to apply the Hallidayan theory to the analyses of Greek written texts. Unfortunately, she does not elaborate on the nature of these difficulties.

Despite the limited scope of Kress and Van Leeuwen's (2001) framework, it provides a useful tool for multimodal analysis, especially for those who may lack the time or inclination to gain an in-depth knowledge of visual literacy, and such a person could be the translator. This tool is based on the representational, interpersonal and compositional metafunctions, equating with Halliday's (1978) ideational, interpersonal and textual metafunctions, respectively. A brief illustration of Kress and Van Leeuwen's (2006) metafunctions is provided below while a more in depth discussion is given in section 3.2.3.

According to Kress and Van Leeuwen (2006), the representational metafunction presents narrative and conceptual images which examine what the picture is about. The narrative image represent the unfolding of actions, events, or processes of change, in terms of the people, places or things depicted. It allows viewers to create a story about the participant(s) because the images include vectors of motion (e.g. bodies, limbs, tools, weapons, roads, etc.). Conceptual images do not represent the participant as doing something, but as being something, or meaning something, or belonging to some category, or having certain characteristics or components. They do not include vectors, but the participants tend to be grouped together to present viewers with the 'concept' of who or what they represent.

The interpersonal metafunction deals with the image's act/gaze, social distance and intimacy, and perspective to examine how the picture engages the viewer. This is achieved by means of the eyeline formed between the participants in the image or between the participant and the viewer, how close the participant appears to the viewer and the horizontal and vertical angle.

The compositional metafunction deals with the layout of the picture, the placement of the participants and its relative salience. This metafunction examines how the representational and interpersonal metafunction integrate into a meaningful whole. The placement of participants (left/right, top/bottom, centre/periphery) allows them to take on different information roles. Salience refers to the ability of a participant to capture the viewer's attention, in terms of size, focus, tonal contrast, frame and background/foreground. Modality is an indicator of message's validity and reliability, in terms of (full) colour, black and white, and depth (see Table 3.3). For example, a black and white photograph of a natural landscape is less valid than a coloured one because, by default, nature (to various degrees) is colourful.

Although Kress and Van Leeuwen's (2001) visual grammar is a useful tool, its application requires careful consideration. For instance, the interpretation of a multimodal text based on this visual grammar should bear in mind whether this text was also designed and produced on the basis of the same visual grammar. The same applies in cases of cross-cultural communication, especially between Western and non-Western cultures (see section 2.3.4).

To summarize the discussion so far, it should be noted that the three metafunction principles is only one way to analyse multimodal texts whose translation requires an approach from different perspectives or in multiple dimensions. Research in multimodal social practices has given rise to a new branch of (or approach to) semiotics called 'multimodal semiotics' (Unsworth, 2008), which deals with how people describe semiotic resources, what they say and do with visual means of communication and how these can be

interpreted. The discussion in the next section moves towards a multidimensional approach to translation.

2.2.4 The multidimensional approach to translation

The concept of a multidimensional approach to translation was developed in an EU-sponsored series of conferences entitled ‘MuTra – Multidimensional Translation’ (<http://www.euroconferences.info/index.php>) as a way to overcome the traditional forms of ‘interlingual, intralingual and intersemiotic’ (Jakobson, 1959 [1996]) translation, which do not include mixed, hybrid or multidimensional forms. Gerzymisch-Arbogast defines multidimensional translation as

a form of translation which transfers – with a specific purpose – a speaker or hearer’s concern expressed in a sign system 1, formulated in a medium 1, via the same medium or a medium 2 or a combination of media into another sign or semiotic system 2 (2005, p. 5).

In other words, the transfer from one sign, semiotic mode, or medium, to another sign, semiotic mode or medium, is made with a specific purpose in mind. This series of conferences has redefined the boundaries of translation as transferring a ST in any sign system, medium or combination of media into a TT in another sign or semiotic system.

Within this multidimensional context, Gerzymisch-Arbogast (2005) proposes new horizons in research, such as translation and interpreting dimensions that involve a change in the sign system. For instance, visuals/symbols transferred to written text (e.g. transforming

pictures/images into text), written text transferred to visuals/symbols (e.g. visualizations of texts) and visuals/symbols transferred to visuals/symbols (e.g. international [electronic] advertising). Therefore, translators may have to approach translation from a multifaceted perspective, and from this point of view the translation is substantially 'multimedia-orientated'. The translator may also be interested in examining how the development of the image (e.g. photo-taking and photo-editing techniques) or the materiality of the newspaper (e.g. glossy paper) might affect the target readership.

Gottlieb (2005) refers to two major fields of MuTra, subtitling and audiodescription, as types of translation that are of particular relevance in this research. He argues that the intersemiotic redundancy of subtitling, or double information, is achieved through spoken dialogue and visual information, which both increase comprehensibility. For example, nodding could appear before the spoken dialogue or accompany the dialogue. Intrasemiotic redundancy is combatted by deleting verbal information, such as interjections and repetitions which do not supply the most important part of the information. In other words, the subtitle is a condensed text where intrasemiotic redundancy is deleted and intersemiotic redundancy is reduced. I argue that, by analogy, the translator of a multimodal text might delete verbal information because a visual is considered to convey the same or similar meaning. In this case, however, the readers are left to decode the meaning of the visual and relate it to the overall context on their own.

Audiodescription, the summary verbalization of visual information for visually impaired people, poses three problems that should be of concern to the translator of multimodal texts. Firstly, there is a change of the semiotic system from visual information to spoken

information, secondly, the time and space limitations imposed by the moving images and the available space on the screen, respectively, and thirdly, the dilemma between information explicitation and information condensing. By analogy, I maintain that the translator of a multimodal text will have to add a description of a particular visual because it might be unfamiliar to the intended readership, use less words because the visual will appear enlarged on the page or because the visual (or part of it) establishes a strong relation with a verbal element.

In order to further illustrate the multidimensional concept, I will give an example from the film *The Contact* (1997). A team of astronomers processed electromagnetic signals transmitted from a planet in outer space and after a decoding process these signals were turned into pages of data. These data, consisting of a series of numbers and symbols, were printed and the scientists tried to read them by putting the pages side by side. The viewpoint adopted by the scientists is characterized by a 'logocentric approach', as when reading a book. However, they could not figure out the meaning of the pages because they did not 'line up'. Another team of scientists solved this problem by forming cubes made of these pages. The leading scientist of the second team explained that in order to read these cube-texts they had to understand alien intelligence, which works on 'multiple levels' and in 'multiple dimensions'.

Based on this 'multiplicity', it is assumed that if reading these pages was dependent on a different way of reading, then their translation may require a non-standard approach. This multidimensional notion, which would include the interpretation of visual elements, is in fact an expansion of Jakobson's (1959) typology on translation (see section 2.2.2). Torop

(2008) proposes a revision to this typology that would shed light on new aspects of the relation between semiotics and translation. This typology would include

semiotic aspects of ordinary interlinguistic translation (for example, problems of the semiotic coherence of the text), metatextual translation, intertextual translation, and extratextual translation (Torop, 2008, p. 256).

Thus far, the discussion involved the use of non-verbal elements in the translation of multimodal texts. It now seems reasonable to suggest that if images cannot always be readily understood at first glance, the translation of multimodal texts should move beyond a literacy that is limited to acquiring skills in the verbal semiotic mode. On the other hand, there is a debate among professional translators on the extent to which the translator should expend the extra effort to make the ST more comprehensible to TT readers. In the following section, I discuss to what extent translation should be seen as involving literacies that do not favour (only) the verbal mode.

2.2.5 Translation as a form of multiple literacies practice

With reference to the turn to the visual, there is a strong debate around the multi-literacies concept, with some researchers (e.g. Jewitt, 2005; Lemke 1998; Street, 1997) arguing that there are several distinct literacies (e.g. visual, print, computer). On the other hand, Snyder (2001) finds it difficult to separate them and talks about a mixture of literacies. She argues that visual, media and print literacies create complex, 'context-based domains'. In the field of translation Oittinen (2008) argues that in order to translate films and picture books,

translators do not simply need visual literacy, but something more particular, like media literacy.

Within this multidimensional environment, a reasonable question would be whether the new modes of communication can be approached using traditional models. Cohn (2003) suggests the opposite, namely that the exploration of these domains requires a grammar for the theoretical examination of the verbal, visual and audio languages. Therefore, one of my main hypotheses is that translators require an array of skills and competencies that go beyond an ability to translate; for instance, the ability to use terminology (e.g. depth, focus, perspective, salience) in the description of photographs. These skills are reflected in (some of) the reading-as-a-multimodal-practice questions based on Kress and Van Leeuwen's (2006) metafunctions. This specialized knowledge is an important consideration when someone has to answer questions that involve the interpretation of visuals, such as the questions appearing in Appendix C. That is, if someone is not familiar with the semi-specialized terminology in this questionnaire, the analysis of the answers should take this inability into account.

According to Schubert (2009), in addition to these skills, the translator should also take into account the 'external translation process'. This may include the translator's main activities (e.g. from the [electronic] reception of the ST to its formatting as a final product in the computer), the agent that commissions the translation task or to whom it is addressed, and other controlling influences (e.g. the job's specification and resources and the appearance of the ST). The ability to work with both verbal and non-verbal elements

would be needed in cases where the person commissioning the translation asks for a more image-based or a more text-oriented presentation.

Competence in the analysis of visual elements would help translators to make judgments about the appropriateness of the overall organization of multimodal texts (Smith, 2008). She argues that at the risk of it being considered as a direct intervention, or as *trespassing* on other professional fields, such a skill may not only facilitate the translation, but also the producers of texts. In the case of multilingual texts (e.g. technical manuals, brochures), where the same text is being translated into several languages at the same time, the translators could comment on the way the visuals should be arranged on the paper in relation to the different verbal components. Risku and Pircher (2008) describe the influence of this professional angle on translators' ability to fulfil the services that are likely to be required of them. The authors refer to a popular myth in technical translation that 'by using image-based forms of documentation, the time, effort and costs involved in translation can be saved' (Risku and Pircher, 2008, p. 159). In one of their empirical studies, they examined how former translators who had moved to the field of technical communication acknowledged that working with both text and images was a new skill they should have learned during their translation training. In technical communication, translators have to decide on the appropriateness of a ST visual element in the context of a specific verbal element in the TT. Risku and Pircher (2008) argue that this is important if the TT is to yield the desired results in the target culture.

They also argue that images are a central point of concern in multimodal texts because they dictate the format of the document to a large extent. An understanding of the way the

layout works would help translators to establish a better picture of the ST and gain an understanding of its constraints for the creation of the TT. In the marketing environment, if the translators themselves wanted to format the layout so as to accommodate a particular photograph or logo, they would need special skills to work with graphic tools. Thus, the question that is raised is whether these skills should be taught and practised regularly or simply allowed to be acquired in the course of time.

2.3 The impact of images on translating the verbal component of multimodal texts

In this section, I begin by presenting the concept of ‘mediation in translation’ (see section 2.3.1) from a semiotic perspective (Torop, 2008), as an intervention (Hatim, and Mason, 1997; Mossop, 2007) and an ideological act (Venuti, 1995). I then propose an expansion on translation mediation with a new concept that I call verbo-visual mediation in translation (see section 2.3.2), based mainly on Hatim and Mason’s (1997) work and Barthes’ (1961a, 1961b), Burgin’s (1976) and Forceville’s autonomy of the image. Closely related is the work of Forceville (1999), Rose (2007) and Kress and Van Leeuwen (2006) on the interrelation of the image and the verbal text.

Afterwards, I examine the impact of images on interlingual translation, in other words, the practical aspect of the translator’s work. A number of authors (Gottlieb, 2005; Pereira, 2008; Van Meerbergen, 2009) argue that by paying close attention to visuals certain verbal discourses are prompted in translation, which may also produce creative solutions to translation problems.

Finally, I investigate the way the semiotic modes are distributed and integrated in the translation process in order to show that the multidimensional approach to translation (Gottlieb, 2005) fits the translation of the verbal components of multimodal texts. This investigation will also involve an MST approach by analogy to subtitling (Chuang, 2006) and other forms of multi-semiotic translation in various contexts, such as the museum (Neather, 2008), and illustrated books (Van Meerbergen, 2009).

2.3.1 Mediation in translation

The relationship of mediation to translation has been discussed by several scholars. In this research, of particular relevance are the work of Torop (2008), who approaches these concepts from a semiotic point of view, and the work of Hatim and Mason (1997), who place special emphasis on the ideology of translation. In addition, since mediation is an act of intervention for the purpose of bringing about a settlement, the work of Mossop (2007) in translation as intervention is also relevant here.

As it has been shown already, semiosis is a central process of translation (see section 2.2.2). One way to understand translation semiosis, Torop (2008) argues, is to examine translation and mediation processes. In this way, the concept of translation will be even more grounded in semiotic methodology. At the same time, he goes on, translation semiotics could be used to deal with mediation processes between various sign systems. From a semiotic perspective, mediation is an activity aiming at the interpretation of (social) meanings which are communicated or relayed to others who may not comprehend the source text fully or partially. The focus of the mediation may be restricted to the

lexicogrammar, but also extend to the semiotic means through which the text is articulated, such as its visuality.

Dendrinou (2007) proposes two types of mediation with a strong semiotic aspect: visual mediation and multimodal mediation. In visual mediation, the message could be relayed in a visual text through a graph, a photograph etc, to readers who may not understand this visual fully or partially by explaining or simply reporting the visual information, by directing the readers to particular aspects of the visual or by instructing the readers how to interpret the visual. In multimodal mediation, the message is relayed in a similar way in a text of single modality or multiple modalities, and vice-versa. For instance, a verbal only message may be relayed by another verbal message with the addition of another modality, such as a picture or graphic.

Torop relates closely the concept of mediation with translation semiotics because the latter 'deals with mediation processes between various sign systems' (2008, p. 256). In this case, it is possible to consider the semiotic aspect of the visual in interlingual translation. In addition, if 'no translation is fundamentally a unique text but one of many possibilities to render the original text' (Torop, 2008, p. 255), then it follows that there are several viewpoints from which to approach interlingual translation in multimodal texts, and one of these is the mediation process.

Of particular relevance in this research is Hatim and Mason's (1997) concept of mediation in translation, where the translator is not a mere communicator of language, but a professional who takes into consideration all meanings that may contribute to

communication. This approach to mediation refers to three ways in which the characteristics of the ST appear in the TT. In minimal mediation, these characteristics are ‘made entirely visible’ to the readers who do not have to assume anything. In maximal mediation, the translation constitutes a radical departure from the ST in terms of register membership, intentionality, socio-cultural and socio-textual practices. Third, partial translation is of a less extreme and more neutral kind than the minimal and maximal.

Figure 2.3 shows an illustration of the concept of mediation, where it is possible to slide across a minimal-maximal continuum in which the translator has, in practice, a vast number of potential translation choices, as indicated by the dotted lines to the left and right of the partial point.

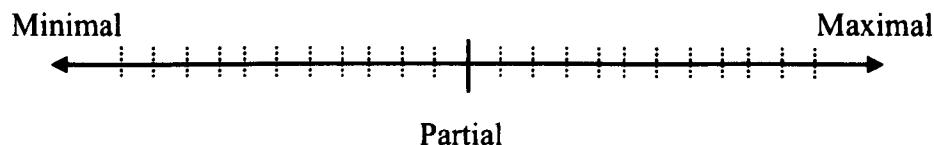


Figure 2.3 A visual representation of the concept of mediation in translation

There are several strategies which may serve as the vehicles for performing mediation in translation, such as discoursal features (e.g. cohesion, transitivity, over-lexicalization and style-shifting) and modifications of a particular genre (e.g. register membership, intentionality, socio-cultural and socio-textual practices). An expansion of this concept of mediation in translation is provided in Figure 3.3.

In order to explain the concept of mediation in translation, let's take a hypothetical example of the Greek phrase *Αρκετοί άνδρες σήμερα είναι ανίκανοι* [Back-translation:

Several men nowadays are unable [to do something]] that appears as a title in an article in a reproduction and fertility magazine. A minimal translation would be 'Several men nowadays are impotent' to convey the sense of inability and the implication that they cannot reproduce. This title would prepare the readers for an article with negative connotations that are critical of men. A partial mediation would be 'Several men nowadays are infertile' to convey the sense of inability to reproduce but by toning down the negative allusion of powerless men. This title would prepare the readers for an article that foregrounds men but by making more neutral lexical choices. A maximal translation would be 'The sperm of several men nowadays is weak' to background the source of the problem, men and foreground another agent. This title would prepare the readers for an article that assigns the responsibility for the procreation problem to a substance over which men are not supposed to have control.

By sliding between the two ends, the translator-mediator performs a kind of translation intervention, either this is a conscious process or an unwitting one. These interventions on behalf of the translator are deliberate, certainly not 'innocent' and have an ideological basis.

The interventionist approach to mediation brings into focus the ideology of translating (Venuti, 1995). According to the ideology of translation, translating is rarely a neutral process and the translator is often faced with a choice between domestication and foreignization. Hatim and Mason (1997) refer to domestication and foreignization as two polarized strategies that translators employ in particular social contexts. In domestication, the translator tries to normalize and neutralize the translation by depriving ST producers of

their voice and re-expressing foreign cultural values in terms of what is familiar (and therefore unchallenging) to the dominant culture. In foreignization, the translation moves in the opposite direction, reflecting the dominant cultural values of the source language society. In these cases, the translator's options lie beyond traditional translation polarities such as 'free' vs. 'literal', 'dynamic equivalence' vs. 'formal equivalence', or 'communicative' vs. 'semantic'.

Translators can potentially act as mediators who overcome these polarities and facilitate the dialogue between the ST and the TT. As such, they are not neutral third parties, but rather people who intervene in the communicative process and establish a connection between the verbal and the visual elements of the ST and TT. Moreover, they do not hesitate to infuse the TT with their own knowledge and beliefs. Fochi calls such a lack of neutrality 'a subtle form of interpretation' (2010, p. 38). On the other hand, Gorlée (1994) claims that translators are passive communicators in translational semiosis and should not intervene in the process. Although Fochi (2010) refers to the translation of verbal elements in a given genre, it could be examined if in the translation of multimodal texts the interpretation of non-verbal elements would require even more subtle interpretations which may not necessarily be regarded as (conscious) interventions. In this research, mediation is approached as nothing more than one of several tactical movements integrated in the translation strategy the translators have chosen to follow.

This line of thinking on mediation in the present research bears similarities with Mossop (2007), who approaches mediation ideology by adopting the concept of the translator's voice. This voice appears in three types, which he calls ventriloquizing, distancing, and

neutralizing. To summarize briefly, ventriloquization is close to domestication while distancing is close to foreignization. The neutralizing voice gives translators the freedom to write in their own style without taking into account any other factor, such as the type of text, ST and TT readership or the person commissioning the translation. These voices, Mossop (2007) seems to suggest, indicate that being a mediator in translation does not necessarily prevent one from changing directions along the mediation axis (see Figure 2.3) during the translation semiosis of a given text. This freedom of movement facilitates the addition of a second visual axis to accommodate visual mediation. In the next section, I propose a new concept that I call verbo-visual mediation.

2.3.2 A theoretical framework for verbo-visual mediation in translation

In an attempt to expand on Based on Hatim and Mason's (1997) 'translation mediation', I propose verbo-visual mediation as a new concept that refers to a number of ways in which the verbal, the visual and their interaction in the multimodal ST will appear in the multimodal TT. By employing this concept, the translator chooses from a variety of verbal and visual options to intervene in the translation process in distinctive ways so as to make the ST either visible or invisible to the TT reader.

In order to illustrate the proposed theoretical framework for verbo-visual mediation in translation, I will briefly describe Chuang's (2006) framework in subtitling. In this framework, the semiotic modes between the ST and TT are not considered to have one-to-one relationships but many-to-many, albeit asymmetric ones. The arrows indicate which elements in the ST are rendered by the elements in the TT.

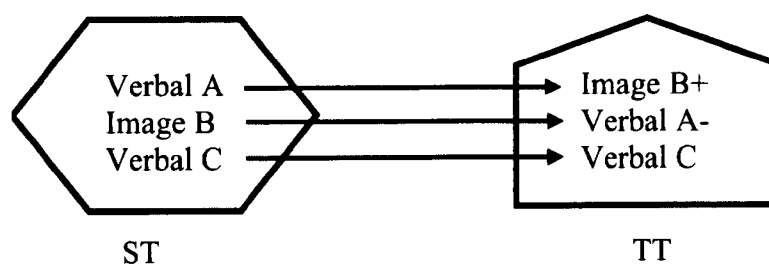


Figure 2.4 Many-to-many multimodal semiotics translation

As shown in Figure 2.4 (based on Chuang, 2006), the overall translation (illustrated by the different TT polygon) of meaning, sense, function and representation is different between the ST and the TT. Here, the semiotic modes ‘Verbal A’ and ‘Image B’ are realized by different modes in the TT. That is, verbal mode ‘A’ is rendered by ‘B+’, an aspect of visual mode ‘B’, and visual mode ‘B’ is rendered by ‘A-’, an aspect of verbal mode ‘A-’. Therefore, taking into account Chuang’s (2006) framework and Oittinen’s claim that ‘reading a book is not far removed from experiencing a film’ (2008, p.86), I argue that the translators of multimodal texts could manipulate the verbal and non-verbal elements by way of analogy to subtitling (examples illustrating this analogy can be seen in Figures 2.9-2.11).

Barthes (1961a) also relates the verbal and non-verbal elements in his tripartite concept of ‘anchorage’, ‘relay’ and ‘illustration’. The text-as-anchorage selects appropriate connotations in the image, and in ‘relay’ the text and the image complement each other. The interpretation of images, in addition to the anchored linguistic message, could be enhanced or modified by looking both at their literal or *denotative* meaning and their symbolic or *connotative* meaning. In reference to illustration, Barthes makes it clear that ‘the image no longer *illustrates* the words; it is now the words which, structurally, are

parasitic on the image' (1961b, p. 25). In other words, the interpretation of the image could modify the meaning of the words.

Burgin (1976) proposes a similar rhetorical analysis along three planes: the image plane, the plane of the text (headline, caption, body), and the plane of the text/image bond. He used this type of analysis in exhibiting posters in the form of images appropriated from print advertisements together with his own printed text which ran counter to the intended meaning of the original ads. In this way, Burgin demonstrates the importance of analyzing multimodal texts by referring to images on their own (see Table 3.4/stage d1) which highlights their autonomy, by studying the verbal-only element and through their combination. Burgin's restructuring of the print advertisement by substituting the text with his own one with the intention to address a different audience is a technique that could have pedagogical applications, as it will be shown later (see discussion on Table 3.4/stage d4).

Forceville (1999) provides a similar perspective on the interplay between the verbal and the visual mode that reminds image readers of the need to look also at the image as an isolated representation. Drawing on an example from Kress and Van Leeuwen (1996), Forceville (1999) argues that if viewing follows the reading of the verbal element, the interpretation of the image will be biased. Similarly, Rose argues that 'visual representations have their own effects' (2007, p. 12). Taken together these sources indicate a need to look very carefully at images (also) as individual items regardless of their context.

In Barthes' (1961a) terms, the translator should also look at the image's 'structural autonomy'; for example, Barthes (1961b) argues that a press photograph's two structures, text and image, should be studied exhaustively, both on their own and as a whole. On the other hand, this autonomy of the image should not compromise the overall effect of the verbal/non-verbal entity. In essence, by analogy to selecting one particular TT word out of a number of choices, what determines the autonomous or supplementary role of the image are the translators themselves who are responsible for their own work.

These arguments enhance the structural autonomy of the image without compromising the overall effect of the verbal/non-verbal entity. Although in translation the image may not be related to a verbal element, specific semiotic codes of the image, such as certain colours, an object or a human figure, will create, according to Kress and Van Leeuwen (2006), various layers of meanings. It is precisely one of Forceville's (1999) criticisms of the first edition of Kress and Van Leeuwen's work (2006) that these authors discuss images without reference to the accompanying text. Incidentally, they revised their work in the 2006 edition where they discuss both images and text.

Moreover, while Kress and Van Leeuwen (2006) present the semiotic phenomena in terms of binary oppositions (e.g. left/right, top/bottom, centre/margin, whole/part), Forceville (1999) argues that categories should describe a continuum between extremes; i.e. from the translation's point of view, in terms of mediation. Regardless of the strategy adopted, it would be wise to consider Rемаel, who argues that no matter which mode carries the message of the text 'the borderline of the division [between images and words] should not be taken for granted' (2001, p.17).

Therefore, it is not so straightforward to identify the individual elements of a visual object and their relationship with the accompanying text. Even if there was a way to identify them, it would still be problematic to separate them. By way of example, in Figure 2.5 (see Appendix D) it is difficult to tell whether ‘THEM’ in the heading refers to all the visuals indicated by the arrows, or only to some of them. Despite this constraint, before translators start relating verbal elements to non-verbal ones they would have to first identify the layers of meanings and then to move on to their interaction. This process could be compared with reading a traditional text consisting of a number of sequential paragraphs. The full understanding of the text is an overall effect that is greater than the sum of the meaning of each paragraph and is moreover a function of a number of interrelations between the paragraphs.



Figure 2.5 Image-text relations illustrated

This preoccupation with the interrelation of image and text may also be attributed to psychology. Recently, there has been, according to Rose (2007), a resurgence of interest within the social sciences about the emotions that verbal elements fail to evoke. This

suggests that images may evoke emotions which may affect the translator of multimodal texts in interlingual translation. This psychological aspect may be important in the interpretation of images, but my current research does not deal with the analysis of emotions.

Rose (2007) also issues a warning to researchers to offer some guidance to image readers so that images (including those that form part of multimodal texts) are not ignored and to avoid vagueness and misinterpretations. This warning would be highly relevant to the translators of illustrated books who in their very first contact with the ST are readers of both images and text. Pereira, in his exploration of book illustrations, regards 'the text as the primary source because it is usually the first work to be created, [the illustrations] being derived from it' (2008, p. 105). He bases his argument on the fact that only visual work that can be placed independently in an art gallery is not in need of a text to 'exist'. Since photographs could be placed in an art gallery, there is the question of whether the decoding of the text (e.g. in the form of a caption) is derived from the photograph or the other way around. Pereira argues also that (in the illustrated book) 'pictures represent the text in visual form' and these 'two [verbal and non-verbal semiotic elements are] different versions of the same story' (2008, p.105).

In relation to translation, on the other hand, Pereira has also shown that 'translators and illustrators share common translation procedures in their respective procedures' (2008, p. 107). The absence or presence of a visual element in Brazilian editions of Carroll's *Alice in Wonderland* (1865) was compared by Pereira to the translation procedures of omission and addition, respectively. Thus, it could be said that the translators of these multimodal texts

are confronted with two types of text (a verbal and a non-verbal) that tell (different parts of) the same story. Therefore, by failing to account for a non-verbal semiotic element in the TT, the translation would fail to present a balanced view of the ST. Even if the TT consists of exactly the same visual element (e.g. the same photograph), its appearance next to a new verbal element (the translated words) might cause 'verbo-visual' associations that are not made by ST readers. From the translation's point of view, the message of the image itself could be seen as oscillating between two extremes and could be analysed in terms of (visual) degrees of 'translation mediation' (Hatim and Mason, 1997). This oscillation-mediation between two extremes is a meaning-making process that equates with 'an infinite process of interpretation using all of the signification techniques' (Moriarty, 2002, p. 24).

Another way to talk about this oscillation between two extremes is to refer to Eco's (1992) concepts of underinterpretation and overinterpretation. This dichotomy is based on the existence of limits to what a text can be made to mean, on the author's intentions relevant to establishing these limits, and on the potential of ruling out some readings as overinterpretations. This approach to interpretation, I argue, could be employed not only in verbal but also in visual constructs. In underinterpretation, the multimodal semiotics translator mediates in the transfer process with a reluctance to look for or the inability to identify translation-based interpretations that are resisted or excluded by the visual. In overinterpretation, the multimodal semiotics translator eagerly seeks out what at first sight might seem irrelevant, inappropriate or meaningless translation-based interpretations.

Since images could be polysemous and encourage multiple interpretations, the readers, in their attempt to uncover meaning, might start manipulating meaning and fall into an interminable process of underinterpretations and/or overinterpretations. In terms of intersemiotic translation, this manipulation involves translating from verbal to non-verbal (Gottlieb, 2005), I argue that in this manipulation there is an imbalance because the image is the primary meaning maker, and left untranslated, while the verbal element takes a finite number of possible translations. These translations could be built in my design so as to explore this imbalance.

The contemporary tendency to foreground non-verbal elements, even at the expense of verbal ones, may impinge, according to Jewitt (2005), upon the ability to visualize things. She argues that ‘readers, especially young readers and computer literate readers, privilege image and colour over writing when reading a multimodal text’ (2005, p. 328). She describes how students using a CD-ROM in science relied solely on image and colour to “read” and visualize the transformation from liquid to a solid, ignoring the written information which provided additional clues about this process. This dominance of the visual mode is expected to have an impact on students’ reading, which may involve finding and creating multiple reading paths through a multimodal text. Such visualizations may lead students to reject a single interpretation of the multimodal text and be ready to accept a number of other potential meanings.

Difficulties in visualizing things or concepts will also have an impact on the visibility of images – the process which extends from the production to the reception of images. This dual process of the image is discussed by Menezes de Souza (2002) in a review of Evans

and Hall's (1999) work. He criticizes them for their preoccupation with the image as a cultural *product* rather than a *process* or both *product* and *process*. De Souza argues that they should have placed greater emphasis on images as a network of discourses by analysing their 'conditions of interpretation and the relation of these to the social and political processes of which they are a part' (2002, p. 131). Understanding these social and political conditions under which images are interpreted are also crucial in cross-cultural communication. For instance, he explains how colonialism and economic-cultural European 'local' (scientific, philosophic, academic, etc.) discourses have become hegemonic through their 'global designs', and are now considered 'universal' discourses.

Privileging the image as a process or product reflects two polarized areas in TS: researching translation as a process (the act of translating) or the final product (the TT). While the emphasis of my study is on the process of image analysis, some reference to the *product* (the students' translations) will be made, in the form of reflections on their ability to draw on meaning potentials (see section 4.2).

In this section, I have presented a framework of verbo-visual mediation in translation that has the potential to help translators consider all semiotic elements of multimodal texts from a variety of perspectives. While both the image and the verbal element have a certain degree of autonomy, their association may erase this autonomy in diverse ways. In the next section, I will move to an examination of the impact of images on the translation of multimodal texts and their implications for interlingual practice, because by paying close attention to visuals certain verbal discourses are prompted in translation which may also produce creative solutions to translation problems.

2.3.3 Visual prompts in interlingual translation

The role of non-verbal modes in interlingual translation has, until very recently, been of little concern to translation scholars, and even then it has been considered somewhat 'reluctantly'. Gottlieb (2005) makes it clear that his intention is to contribute to a fuller understanding of the multidimensional approach to translation rather than undermining the importance of the verbal mode. It is reasonable that the visual and the verbal mode should be jointly examined in translation, but his open declaration that it is not his intention to create an imbalance in this relationship is indicative of the inherent problems in MST.

Therefore, a good point of departure for the discussion here is the areas of the illustrated book, subtitling fiction and word order. By the term illustrated book it is meant here a verbal text that is accompanied by a number of pictures that illustrate parts or a whole tale or story. Subtitling refers here to the screen translation of fiction in terms of the link between image, dialogue and subtitle. In her discussion of the translation of illustrated books, Pereira (2008) argues that the placement of the visual elements in a figure could represent textual and narrative elements. She used Kress and Van Leeuwen's (2006) distinctions, namely left/right and top/bottom, to describe how the story in an illustrated book was meant to be read in a specific way, for instance, by placing the verbal language vertically and the visual horizontally, or by producing the (westernized) effect of building the pace of narration from left to right. As a result, the choice of the verbal elements in the TT should reflect these orientations to allow readers to read the information roles given by the ST. Similar choices are also found in other related areas, such as subtitling.

Pettit's argument that in subtitling 'both the visual signs and the way in which they interact with the linguistic signs need to be identified before deciding upon a translation strategy' (2007, p. 178) and Gottlieb's 'the time left for non-verbal viewing should match the time spent reading [the subtitle]' (1994, p. 114) add a further perspective on the translation of multimodal texts. Van Meerbergen claims that the translator

has to find creative solutions within the linguistic constraints of the target language, taking into account the images as well as rhyme and space. This potentially leads to changes in the textual relationship between the verbal and the visual text components (2009, p. 9).

An example of such a creative solution is the change in word order, function or class that could place the same picture into a new textual and socio-cultural context; for example, in a classroom situation, the translation of a student's request to the teacher '*May* I leave the class?' translated by the statement 'I *want* to leave'.

Desjardins (2008) discusses how similar verbal discourses may also be prompted by visual elements. The interest for TS, she argues, lies in the way this translation of the verbal/aural by particular images creates certain transactions that could potentially yield concrete social effects. In the context of Canadian newscasts, a discourse pertaining to multiculturalism in Québec may favour 'the automatic association of certain cultural groups with the notion of reasonable accommodation' (Desjardins, p. 51). This is an instance of the translator as a culture-mediator who deliberately favours one option and leaves out another. Yet, in MST this autonomy in verbal elements is (almost) always enjoyed contextually by the

surrounding verbal elements. In order to illustrate that what appear to be aesthetic or semantic niceties in a philosophical context are actually very real and practical considerations when it comes to translation, I will use the following example.

Verschueren argues that a change in the meaning of translation could ‘be observed in the interaction between visual representations and verbal elements’ (2007, p. 78). Figure 2.6 (Figure 4, in Verschueren, 2007) shows the photograph he used, a half-destroyed restaurant with the sign *Au bon accueil* [Welcome].



Figure 2.6 Visual prompt in interlingual translation

He claims that when these words appear on the front of a hotel or restaurant in the Swiss Alps, all the viewer sees is a hotel or a restaurant that signals its hospitality. The change of context with the half-destroyed building changes also the significance of the words, in an amusing way altering the meaning. In this example, the meaning of the words is modified by a change in the visual context. The converse effect would be caused if in a news article we first observe the photograph on its own (totally de-contextualized) and then together with its title/caption.

This change of meaning is reminiscent of Lefevere's (1992) concept of translation as a rewriting of the original text. When this rewriting is intentional, it is actually a 'manipulation undertaken in the service of power, and in its positive aspect can help in the evolution of literature and a society' (Lefevere, 1992, p. xi). However, no matter the intention of this manipulation, it reflects an ideology that is understood as a 'grillwork of form, convention, and belief which orders our actions' (Lefever, 1992, p.16). In this sense, ideological rewriting will limit both the choices made by the translator-rewriter to find solutions to problems and the development of the translated text.

Pereira relates Lefevere's ideology in translation to the illustrated book by arguing that it 'can be one of the most obvious forms of directing illustration, as well as translation.' (2008, p.108) She argues that this ideological control is usually exerted on one hand by the illustrators, in compliance of course with the requirements set by the author of the book and the editor commissioning the illustration, and on the other hand by the translators. There are three possible ways for the translator, the illustrator and the editor to cooperate. If the translation is made after the illustration of the book, the illustrations themselves will impinge on the translation process and dictate the basic strategy used by the translator. On the other hand, if the translation is completed before the illustration, it is the production of the illustrations that could be affected by the written text. If the translation process takes place while the illustrations are being created, then the ideological rewriting of the ST will be jointly dictated by the cooperation between the translator and the illustrator, and in consequence with the editor. The possibilities for cooperation between the translator and other stakeholders of a translation production will also be discussed in section 2.4

Translators are often asked to produce similar insights into the translatability of images with culturally-sensitive content (Tercedor-Sánchez et al., 2005); for example, the same image accompanying a text in the ST country may evoke different culturally- and ideologically-sensitive values in the TT country. Tercedor-Sánchez et al. (2005a) describe a teaching activity where some of their students who did not belong to the ST culture failed to recognize the importance of specific colours and did not incorporate their names in the translations.

The cover of the German magazine *Focus* in the edition of February 2010, provides an example of a ST photograph which once found in the TT culture could strike sensitive chords. The covers shows the statue of the *Venus Milo*, draped in a cloth that bore resemblance to the Greek flag and making a very rude gesture, accompanied by the heading “Betrüger in der Euro-Familie” (Frauds in the Euro-Family). The German magazine went on trial in Athens on defamation charges for publishing a doctored image of the ancient Greek goddess raising her middle finger to Europeans. Although the title does not explicitly refer to Greece, the co-presence of the visual element of a Greek statue and a critical heading reveals an attempt to interrelate the heading with the wider political and socio-economic situation in Greece at that time. Additionally, this negative connotation is further enhanced by the insulting modification of the posture of the statue.

It could be argued that this socio-political interrelation and the kind of impact on the Greek society are not universal because in other countries the magazine readers did not identify the statue as being part of the Ancient Greek culture, or even the cultural connotations of the westernized rude gesture. Therefore, the translatability of the statue in a culture not-

familiar with the Greek origin of the statue might also be dependent on adding in the title the information 'Greece/Greek' to help readers make the association originally intended by the author of the article and the editor of the magazine.

In another example of a culture-sensitive, non-verbal semiotic element, Horn-Helf explains that if 'a German [engineering] dimensional drawing is reproduced unaltered in an English TT for readers in the USA, it might be open to misinterpretation' (2005, p. 106). In addition to the front or main view, dimensional drawings from German machine manufacturers usually include the left-hand side view. By the term 'view', it is meant the way technical information is positioned relatively to the main (or front), on the top/bottom, or to the left/right of the main. Figure 2.7 (*Fig. 7* in Horn-Helf, 2005) shows a main view of such a dimensional drawing where the left-hand side view is placed on the right-hand side of the main view.

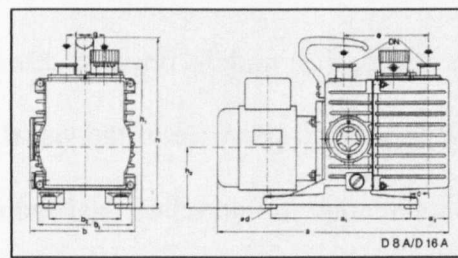


Figure 2.7 Modifications in ST culture-sensitive visual information

In the US and Canada, views are arranged according to their position, i.e. the top view is located above the main view, and the left-hand side view on its left-hand side. In order to adapt the German dimensional drawings to US conventions, the location of the left-hand side view would have to be changed to the right-hand side. Such a modification illustrates

the impact on the overall layout of the TT and the space occupied by the visual and the verbal elements. While in the ST a visual element may appear to the left of the verbal element, in the TT it may appear to the right or even below the verbal, or it might appear in relatively larger size. As a result, the translator would have to deal with one type of visual in the ST and another in the TT. That is, the type of verbal information associated with the ST visual will not correspond to the verbal information in the TT, and as such, the verbal will have to be modified considerably.

The importance attached to images as aids to understanding in translation may take several forms. Risku and Pircher (2008) give the example of a translation agency which encountered severe problems with the translation of a woman's clothing catalogue because it had not provided its translators with the accompanying pictures. The translators found it difficult to translate expressions such as 'decorative ribbon' or 'integrated push-up panty' without the relevant picture to refer to, even though they were experts in similar texts. This example shows the significance of gathering as much contextual (verbal and non-verbal) information as possible on the ST.

This section has shown the increasing importance attached to integrating visual prompts in the interlingual translation of multimodal texts. It has highlighted the need to refer to the reading paths between the visual and the verbal. Creative solutions to MST problems could be achieved by referring to non-verbal aspects, such as the time spent analysing images, and the change of the visual socio-cultural context in the TT. Also, lack of access to the visual of the ST may lead to unsuccessful verbal solutions in the TT. In the next section,

MST is approached from the perspective of the mode and the way meanings are transferred across modes in multimodal texts.

2.3.4 The distribution and integration of semiotic modes in translation

The distribution of the semiotic modes in the print multimodal text is not only from the ST written mode to the TT written mode, but also from other semiotic modes into the written modes and from the visual to other related semiotic modes. At the same time, the multimodal semiotics translator integrates the meanings of multiple semiotic modes in terms of considering the totality of equivalent relationships between the ST and the TT. The concepts of distribution and integration will be described by referring to multidimensional translation (see section 2.2.4), the field of subtitling, the panels on museum exhibitions, and picture books.

Gottlieb (2005) provides two main types of multidimensional translation that apply to the translation of print texts; the conventional and inspirational translation, and two subtypes, verbal → not (only) verbal text and non-verbal → verbal text, for each main type. Gottlieb begins by defining *text* ‘as any combination of sensory signs carrying communicative intention.’ Based on this communicative definition of *text*, he broadens the definition of *translation* as ‘any process, or product hereof, in which a combination of sensory signs carrying communicative intention is replaced by another combination reflecting, or inspired by, the original entity.’ (2005, p. 35). He distinguishes the *inspirational* from the *conventionalized* type of translation, in terms of degrees of freedom for the translating agent.

In conventional translation, this freedom rests on norms and conventions, such as when the translator uses dictionaries and other works of reference as tools in interlingual, written translation. In mediation terms, conventionalized translation is minimal by establishing a direct link between the ST and TT, and criteria for evaluation are easily established – although not always totally agreed upon. In inspirational translation, the TT relates to the ST in a way that is more free and less predictable than what is found in conventionalized translation. In this case, it would be difficult to reconstruct the ST from the TT which, to a certain extent, it would be possible with conventionalized translation.

In the inspirational type of translation of the non-verbal → verbal type, where the ST consists of an image and an accompanying text, a feature of the non-verbal mode will be rendered in the TT with a verbal text. In Gottlieb's (2005) terms, this is an intersemiotic translation of the verbalizing-diasemiotic type that involves two different channels [(from) image (to) verbal]]. In the reverse case, a verbal element will be omitted because the translator deems (albeit subjectively) that the visual element, when transferred to the TT culture, incorporates somehow the meaning of the verbal element and as such the intended audience will be 'visually compensated' for that verbal loss. Gottlieb (2005) argues that the screen adaptation of a novel is a deverbalizing-supersemiotic activity involving more channels; that is, the screen adaptation incorporates the verbal part of the (print) novel and other visual and aural semiotic elements. In fact, due to differences in languages and cultures, losses and gains are unavoidable parts of translation. Also, a conventionalized translation of the non-verbal-hyposemiotic type is the notation of ballet, where the dancers' visual performance is rendered by a symbolic representation of their movements on a piece of paper.

Another example that uses different channels, in other words, diasemiotic translation of a polysemiotic text, is subtitling. Chuang (2006) demonstrates how the reading of a TT can be based on non-verbal modes. In a particular film's subtitles (from Chinese into English), TT subtitles were added or omitted while the source dialogue was absent or present in the ST, respectively. This was done on the assumption that the viewer would be (visually) compensated for these gains and losses. In one example, Chuang (2006) describes how an English subtitle was rendered not from the source dialogues or the written signs, but from the moving images and sound effects in the preceding shots. Following his claim that the translator could distribute the meanings of the (verbal) text to other semiotic modes, we could extend this notion of subtitling to the translation of print multimodal texts. Figure 2.8 provides the opportunity to discuss subtitling from a verbo-visual mediation perspective (see section 2.3.2).

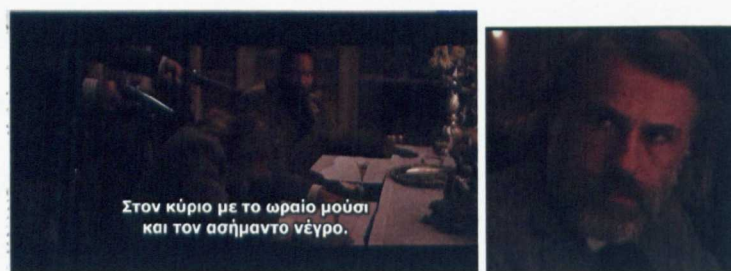


Figure 2.8 Verbo-visual mediation in filmic text

Figure 2.8 shows two picture frames from the film *Django Unchained* (Django Unchained, 2012). The story is about a freed slave (Jamie Foxx) who, with the help of a German bounty hunter (Christoph Waltz), sets out to rescue his wife from a brutal Mississippi plantation owner (Leonardo DiCaprio). In the left picture frame, the price for rescuing the wife has been set and the plantation owner (not shown in the frame) is addressing the two

heroes: 'To the man with the exceptional beard and the unexceptional negro.' The Greek subtitle reads *Στον κύριο με το ωραίο μούσι και τον ασήμαντο νέγρο* [Back-translation: To the gentleman with the fine beard and the insignificant negro]. Here, the subtitler probably realized that the ST verbal pair 'exceptional – unexceptional' cannot be rendered in the TT with the similar form 'Greek adjective – α [privative affix 'a'] + the same Greek adjective'. The choice of the Greek word *ωραίο* (fine) reveals a desire to highlight a visual feature, here, a beard. This translation is an example of maximal mediation in verbal terms (from 'unexceptional' to 'insignificant'), but of minimal mediation in visual terms (the beard is 'fine', in the sense that is well-trimmed). This translation might have been different if it was based only on the script.

Gottlieb (2005) poses a dilemma faced by subtitlers, namely whether to translate from the script or directly from the soundtrack. Similarly, translators may opt to translate without looking at the visuals, but by rather focusing solely on the verbal aspects. This may blur the boundaries between the translator (of the print script) and the subtitler (of the multi-semiotic film). In this case, the losses and gains would be different for translators and subtitlers and would be differently perceived by the readers and audience, respectively. The discussion on subtitling provides several strategies of intersemiotic translation that could be applied to the translation of print multimodal texts. Although Taylor (2004) does not dismiss these strategies, he argues that their application depends on whether the viewers will retrieve the original meaning through other non-verbal semiotic modes so that the overall text does not suffer any loss of meaning; for example, the meaning of a word can change from a question to a warning simply by replacing the punctuation mark following it from a question mark to an exclamation mark (e.g. from Ice? to Ice!). The

reader, or in our case the translator, who fails to identify the expressed attitude towards what is being represented might lose an opportunity to add another layer of meaning in the translation.

Neather (2008), in the museum context, calls this type of visual compensation ‘intergeneric complementarity’ between texts, where information omitted in a TT is compensated for in another TT elsewhere in the museum. By analogy, I argue, the same could apply to print multimodal texts where information missing in one paragraph may be presented in another paragraph in different ways, so that they function somewhat as complementary interlingual translations of each other. This type of interlingual translation in another multi-semiotic environment has, according to Neather (2008), several complex implications. In museums, the caption must be considered not simply in terms of its relation to the ST, but also in terms of its relation to the exhibits (relevant examples will be discussed later in this section).

In addition, when the same object is removed from one setting and recontextualized in relation to a different set of objects, it can unlock radically different possibilities of interpretation. By analogy, the same would apply to the visual element of a photograph or a picture in a multimodal text when it is recontextualized in the TT’s culture. The translation of picture books offers several examples of this strategy.

Van Meerbergen (2009) compared a number of Dutch (ST) and Swedish (TT) picture books in terms of their interpersonal metafunction. In one case, while this metafunction was expressed visually in the ST, creating an intimacy with the viewer by presenting a

large image of the participant's face in a relatively empty white space, it was reinforced in the TT by adding the Swedish personal pronoun *du* (you). Such markers, which are inserted in the TTs, could increase interpersonal involvement with the reader and add, according to Baumgarten (2008), 'meanings, which are not encoded in the source texts'. This points to the intersemiotic possibilities of translation. Remael shares this view by further suggesting that (under certain conditions) 'language may have to take over part of the ST's pictorial message' (2001, p. 19). Although Remael is an advocate of the idea that the different semiotic systems make a special contribution to the translation process, she argues that multimedia translation is not an intersemiotic activity but a process involving texts and intertextuality. Yet, in multimodal texts this intertextuality may include the shaping of a TT by borrowing and transforming non-verbal elements of a prior (multimodal) text or by referencing other (multimodal) texts when reading another.

Likewise, Cattrysse (2001) draws the translator's attention to the intersemiotic possibility of rendering non-verbal information from one culture verbally into another or vice versa. In the area of comics, Kaindl (2004) argues that culture is a decisive factor in translation, especially when humour is encoded in the pictures rather than in the text. This problem could be intensified in the case of a visual pun or sign play which depends on the presentation of an object that belongs to a particular culture. For example, Cosculluela (2003) suggests that by translating the American *baseball* or the British *cricket* by the French *cyclisme* the French readership gets an example of symbolic translation and not the usual meaning of these terms. In cultural terms, what is important here is to get the symbolic value of the terms across, in this case a popular sport in France. However, if there

is an accompanying picture of baseball or cricket, the resulting verbal-visual interaction would be problematic.

Van Meerbergen (2009) draws our attention to a similar compensatory technique by means of the visual-verbal relationship of redundancy. In her examination of the translation of picture books, she argues that the addition of personal pronouns in the TT was driven by a change in the semiotic content of the image into a new textual and socio-cultural context. In another book, instead of naming all the objects depicted in an image one by one as in the ST, the TT summarizes them under a single more general term. This less specified referential relationship between words and image regarding the naming of the objects was made, according to Van Meerbergen, in order to leave some 'gaps' open for the reader to fill in. This strategy is an instance of a greater internationalisation of multimodal books and an avoidance of artistic and culture-specific elements in the images.

Similar techniques were also adopted for the translation of German and British technical manuals into Russian, where the translators added textual references to figures, where no such references existed in the ST (Horn-Helf, 2005). This addition is justified, according to Horn-Helf (2005), by the fact that based on Russian technical writing conventions a textual link is needed for each figure, while German and British conventions favour linkage to figures by the common topic only. This point takes us back to the picture books.

The discussion in this section thus far could be illustrated by Figure 2.9 where the multimodal semiotics translator embarks on what it seems to be a 'translational odyssey' in their attempt to reach a TT. In the ancient Greek poem *Odyssey* by Homer, after the end of

the Trojan War, Ulysses set sail from Troy back to his homeland Ithaca. In his journey back to the island Ithaca, Ulysses experienced a series of short and long dangerous adventures, where each one of them shaped the adventure following. Similarly, the translator is making several movements in order to leave a ST and arrive at a TT.

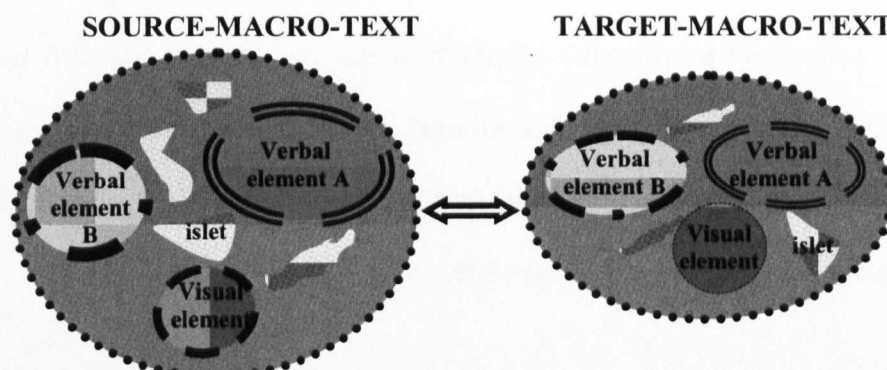


Figure 2.9 The odyssey of the multimodal semiotics translator

In Figure 2.9, each macro-text consists of three micro-texts (Verbal A, Verbal B and one Visual element) whose size reflects the importance attached to them by the translator. In other words, the translator has assessed the importance of each ST micro-text and decided that their function should be different in the TT (see Figure 2.4). The gaps on the perimeter indicate potential points of 'entry' (decoding) or 'exit' (encoding). This entry/exit is a verbo-visual mediated movement which reflects the translation strategy adopted by the translator (see section 2.3.2).

The translator, upon entering the source-macro-text, sets sail for a micro-text. Points of entry may be allowed (or simply decided by the translator) only from a particular point of view in order to meet a specific need. This view may require a change in course or a brief

docking at an islet (intertext) in order to re-map the journey prior to setting sail again. The journey may consist of three one-way courses between the three micro-texts and a way out, or an odyssey where the translator is constantly washed ashore the micro-texts and islets, his or her perspective being affected by these ‘multiple *recursive* “intermodal passes” made between verbiage and image’ (Unsworth, 2007, p. 174). The translational *Ithaca* will remain as far away as ever while the translator keeps on voyaging between the source-macro-text and the target-macro-text. Accordingly, the target readership will set out on its odyssey (in the target-macro-text) to meet two corresponding verbal micro-texts and an identical (visual) one, but through different islets along the way.

A problem with this journey is the translators’ ability to identify the modes for analysis, since their ‘complexity quickly overwhelms’ (Hull and Nelson, 2005, p. 11). Instead of focusing on a selected number of modes, or aspects, of the multimodal text to be analysed, the translators are also obliged to take into consideration all non-verbal modes of communication, similarly to the way they do when they (have to) translate all the verbal elements. The examples following illustrate this translational odyssey both for translators and TT readers.

Thus, the translator should take into consideration not only the relationship of the semiotic modes of the target-macro-text, but also the way their connection with the source-macro-text enables an intersemiotic translational journey that leads to the production of a complex TT. Such a journey would require the translator to consider the triangle ‘ST/visual TT/verbal TT’ rather than merely the binary scheme ‘ST vs. verbal TT plus illustration’. Fochi (2010), in her description of a two-page drawing, describes how the wrist of a participant

on the left side extends onto verbal text on the right page, materially linking the image to the verbal. This could lead the translator to assume that the drawing, by means of the wrist-as-a-sign-of-vector, narrates a story and thereby to ascribe narrative qualities to the TT. This is another instance of multidimensional translation that translators of print multimodal texts may be confronted with. However, it is the effect of the visual that matters and not the particular type, for instance, an incidental stock photo, or a painting or other similar artwork.

The museum's wall panel is a type of print multimodal text whose translation also requires a multidimensional approach. In the translation of a wall panel in a museum in Hong Kong, where the panel consists of two verbal elements and a visual one, Neather (2008) has found some constraints that affect the overall function of this multimodal text. In Figure 2.10, the ST (Chinese) and its TT (English) are juxtaposed to the right of the graphic (two people drinking tea), with the ST placed above the TT.

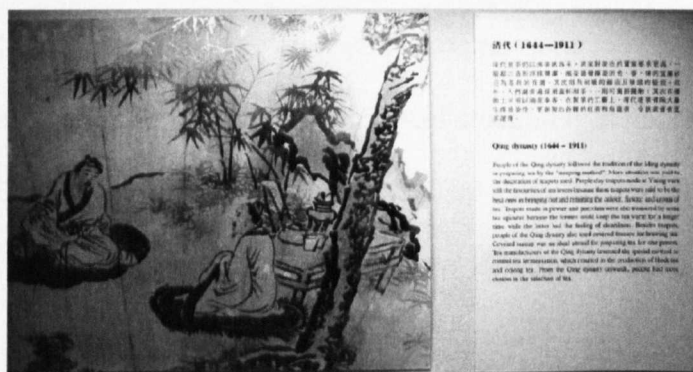


Figure 2.10 Space-prompted textual modifications in the TT

We can use Figure 2.10 (Example 1, in Neather, 2008) to describe the way significant portions of ST information are modified in the TT version. For instance, a whole phrase is omitted while two others statements are paraphrased as a single observation. On the other hand, expansions in the TT regarding the dynastic references, not present in ST, such as the phrases '*followed the tradition of the Ming dynasty*' and '*Besides teapots, people of the Qing dynasty...*,' are used to foreground these period markers.

Neather explains that these strategies 'represent[s] an attempt to negotiate a number of differing forces acting upon text production' (2008, p.226). Such a force is the spatial restriction imposed on the translation. Chinese is a considerably more compact language, both grammatically and orthographically, and it can convey the same message in less the physical space that it takes to say it in English. Since in the museum environment the spatial relations take on great importance, for instance, because the available textual space may be at a minimum, the translator may have to reduce the TT to satisfy this need. In addition, there is the need to maintain in the TT the salience (see section 2.2.3) of the picture in the ST, which occupies an area at least twice that of the ST and TT combined. If the translator had chosen to produce a longer text column to be created by the use of a TT that would render the full ST, then the visual would no longer dominate the verbal. If we follow this argument, the translator is entitled to break the rules of proper translation

However, it cannot be easily accepted that readers would tend to read this multimodal text from left to right. For example, someone may be more interested in reading first (or spending more time on) the verbal element and then moving on to the visual. Moreover,

since the ST and the TT are juxtaposed, some visitors (e.g. a translator) may prefer to focus on the verbal versions for professional reasons and may assign a secondary role to the graphic. Simultaneously, the placement of the ST above the TT, according to Neather (2008), gives the Chinese text a prominent position. Yet, the visitor who does not speak Chinese would ignore the ST and concentrate on the English version. Figure 2.11 is an example where it could be said the TT has been modified particularly for the English visitor.



Figure 2.11 Spatio-visual-prompted textual modification in TT

The picture shown in Figure 2.11 (Example 3, in Neather, 2008) belongs to a set of ten different photos, each with an accompanying short text caption, that illustrate the process of preparing tea. In the opening of the ST, the phrase ‘把瓷杯排列好’ (*Set out the porcelain cups*) has been omitted in the TT. Neather (2008) explains that one reason for this omission is the spatial considerations, similar to those discussed in Figure 2.10. However, the visual-verbal cohesion is not disturbed because the missing information (the

cups) is already visually available to the viewer. In other words, the verbal loss in the TT is compensated for by the visual signification.

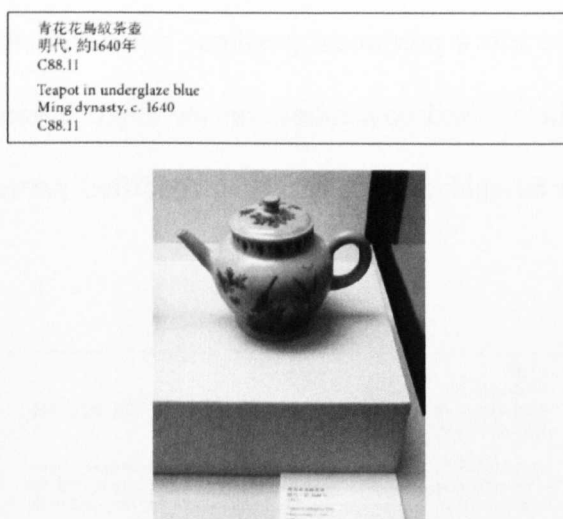


Figure 2.12 Visual-prompted textual reduction in the TT

In Figure 2.12 (Example 6, in Neather, 2008), the ST information 花鳥紋, meaning ‘flower and bird designs’, is left untranslated. Neather also examined other labels and found a clear pattern: ‘where iconographical or artistic information is visually available without the need for verbal elaboration (as here), it is left untranslated (though it is always present in ST).’ (2008, p. 236). The examples in Figures 2.10-2.12 reflect a desire to comply with TT norms, such as the need for extreme concision (due to the limits on space) and the need to maintain the salience of the object in relation to the text. It may also be an attempt to avoid information overload, where it is possible to do so. However, no matter the strategy adopted, the verbal information regarding artistic details is only omitted when it is already communicated unequivocally by the visual signifiers.

Another constraint, as Neather (2008) describes it, is the genre convention. In the case of the museum, the TTs should be succinct enough to ensure that visitors do not simply pass them by. However, he has observed an exception to this rule: in another museum a three-paragraph Chinese text was rendered into English by providing a highly literal translation of the first paragraph and a very brief summary of the other two. Therefore, Neather (2008) argues, the verbal and the visual elements do not always tell the same story. That is, the verbal element does not describe the visual element. Although Neather (2008) does not say much about the nature of this conflict (e.g. the type of information missing or added), it is remarkable that the graphic is read in a paradigmatic fashion, leaving the readers to make their own interpretative links between the verbal and the visual. Therefore, if the visual is merely used as a ‘mood creator’ to give a picture of tea-drinking in classical China, the TT’s visual cohesion might be particularly weak.

Visual cohesion has gained importance with the recognition that cohesive work in ‘new writing’, as Van Leeuwen (2006) describes it, is not realized only through linguistic resources, but also through non-linguistics, such as ‘layout, colour and typography’. A model of verbo-visual cohesion has been developed for subtitling by Baumgarten, who claims that in film texts the ‘visual and verbal meanings ... are integrated in specific ways to form *one* text’ (2008, p. 10). If this unity is no coincidence, she goes on, the successful translation will be a fusion of the verbal and the visual to be realized by linguistic means, as it is shown in Figure 2.13.



Male character [left]: The first **one** won't kill you.

Male character [left]: Die erste **Kugel** wird Sie nicht töten.

Figure 2.13 Verbo-visual cohesion in filmic text

Baumgarten (2008) argues that in the German-dubbed version, the translations of James Bond's films handle the co-occurring visual information differently than their English source texts. For instance, in Figure 2.13 (Example 8, in Baumgarten, 2008), the English ST relies on the hearer's understanding of the implicit reference of the pronominal 'one' to the bullet that will be fired by the gun. On the other hand, the German translation makes this reference explicit by using the noun 'Kugel' (Bullet). A similar tendency in the TT, that is, translations that display a greater redundancy between the verbal and the visual information, is also evident in Figure 2.14.



JB: Mmh. . . No wonder you can get dressed so quickly.

JB: Mh. . . Trägst Du zur Kette nie mehr als nur ein Kleid?

Figure 2.14 Verbo-visual redundancy and interpersonal orientation in filmic text

In Figure 2.14 (Example 9, in Baumgarten, 2008), where the male character zips up the woman's dress, the subtitler must have been influenced by the visual vector (see section 2.2.3) formed by the male's distinct glance down her back, and his discreet smile, to imply that the woman is naked under her dress. In the TT, *Trägst Du zur Kette nie mehr als nur ein Kleid?* [Back-translation: do you always only wear a necklace and a dress?] this implication not only is it made explicit but the affirmative statement has been turned into a question. Thus, the need for an answer on behalf of the woman increases the interpersonal relationship between the two participants.

Recognizing that not all co-occurrences of visual and verbal information are cohesive, the linkage between verbal and the visual information may not be linguistically explicit and still be cohesive (Taylor, 2004). While in subtitling this unity may have some force, because each frame is supported by a short verbal element accompanying that particular visual element (Baumgarten, 2008), in other multimodal texts things are more complicated. In print advertisements, all the visual and verbal elements are co-present on the paper. It is the translator's task to identify which specific verbal and non-verbal elements form a unity, or verbo-visual cohesion. Things could become even more complicated if a verbal element forms unity with two or more non-verbal elements, and vice versa. The translator would have to decide which unity is appropriate for the occasion; in other words, he or she would have to perform a verbo-visual mediation (see section 2.3.2).

By analogy to the subtitler who produces subtitles that 'integrate the meanings of the spoken with the meanings of the moving images and sound effects' (Chuang, 2006, p. 380), the multimodal semiotics translator could choose to omit a ST word in the TT.

Thereby, the translation would integrate meanings of the ST word with the meanings of an image or a specific semiotic element, such as a participant, a colour scheme or a combination of other elements. In this way, the translator takes the semiotic modes involved in the TT as a whole to represent the meanings of the ST.

We have seen that gains and losses in MST are not only verbal but also visual. Certain non-verbal elements may have to be modified or omitted completely in the TT. As a consequence, it will also affect the verbal-visual cohesion of the TT. The increased internationalisation of multimodal books, and the avoidance of artistic and culture-specific elements in the images, are some of the reasons why translators need to consider the visual image, and their training needs to respond to the changes. In the next section, it will be discussed if translation training in the employment of the techniques and strategies described thus far could help translators identify the coexistence of word and image and guide, without enforcing, their interpretations.

2.4 Training and practice for multimodal semiotics translators

In this section I review the literature that provides a more in-depth discussion of the wider issue of translation training and practice in a multimodal semiotics context (Risku and Pircher, 2008; Torresi, 2008). I then talk about the development of a translation-oriented awareness of multimodal texts (Hull and Nelson, 2005; Tercedor-Sánchez et al., 2005). Next, the issue of creativity is discussed here again, and in particular fostering visual creativity in would-be translators (Kussmaul, 2005; Cho, 2006). The visual aspect of multimodal texts creates a complicated training environment, and as such, I examine if the subject expert could have a role in the translation classroom (Torresi, 2008; Schubert,

2009). On the whole, this section presents various techniques of visual analysis that will be used to answer the third research question.

2.4.1 Translation training in a multimodal semiotics context

The translation of multimodal texts poses new challenges in the training of multimodal semiotics translators. It has been realized that one aspect of the problem is reflected in the emphasis placed on the verbal-based training usually provided by translation schools. Torresi points out that '[translation] training tends to focus on the verbal dimensions of the text that are relevant for the science of linguistics, treating as incidental, if at all, any non-verbal elements' (2008, p. 64). Moreover, Risku and Pircher (2008) propose translation training courses that would make future translators more aware of the importance of non-verbal elements.

A new tendency in the training of translators, according to Sütiste and Torop, is

the introduction of intersemiotic translation, for reasons that are both pedagogical (comprehension of the visual aspect of the text) and pragmatic (translating into a visual environment, such as a newspaper layout, etc.) (2007, p. 203).

This type of translation pedagogy is also an indication of the changing boundaries of translation processes. If we accept Smith's (2008) claim that translators should be involved in the creation and adaptation of global advertisements, then their training should include a basic knowledge of all the issues and procedures related to producing such multimodal texts; an area not directly related to translation.

2.4.2 Developing a translation awareness of multimodal texts

Since Remael (2001) put forward the idea of teaching how to produce multimodal texts in TS, there have not been many examples of explicit training in multimodal text production for translation purposes. However, the examples that do exist are quite illustrative of the direction translation training could take.

In teaching technical and scientific translation, Pietro-Velasco et al. (2008) gave their students multimodal texts and asked them to describe the visual material of the TT and produce informal think aloud protocols (TAP) at home by recording their own descriptions. Although it is not provided data to evaluate the effectiveness of this teaching approach, these transcribed verbal reports produced by the students during the translation process could be taken as the first step towards formulating the TT. The results of this analysis, Kussmaul and Tirkkonen-Condit argue, 'can then form a basis for translation pedagogy' (1995, p. 178).

These new types of multimodal texts will find a place in the translation classroom only if we 'widen our definition of writing to include multimodal composing as a newly available means' (Hull and Nelson, 2005, p. 29). The composition of multimodal texts, which involves a reception (reading a ST) and production (writing a TT) stage, could become a controlling-influence activity for the multimodal text translator. Schubert (2009), for example, argues that translators may be asked to produce a TT whose design (e.g. especially technical documents) may differ from the ST's. That is, the commissioner of a translation may ask, for some reason, a TT whose appearance would be clearly different from the ST. In the case of a technical text, the placement of graphics or drawings on a

different position in the TT, with a different size, or in a different format (e.g. from a pie graph to a circle or bar graph), may have an effect on translation, in terms of creating new reading paths, of the salience of the graph/drawing and of the new text that accompanies the different format of the graph/drawing (see section 2.2.3). It is reasonable to assume that translation training (at least in technical translation) should include an aspect of producing whole texts, rather than dealing with the verbal only material.

This approach to translation training would greatly enhance translators' ability to deal with these new requirements so as to meet the customer's needs. The idea of simultaneously handling visual and verbal material could also contribute to Gottlieb's (2005) intention for a multidimensional approach to translation where no semiotic mode is undermined at the expense of the others. For instance, the delay of the translation process so as to deal with the non-translation task of re-designing according to the TT conventions (or to take into account the new design) might change the textual relationship between the verbal and the visual text components (Van Meerbergen, 2009).

The combined task of re-designing and translating is one of the occasions where 'translation goes beyond the mere reproduction of the ST in another language' (Schrijver et al, 2011, p.3). If re-design is considered to be a type of editing performed on the (non-verbal part of the) multimodal text, then the concept *transediting* (Stetting, 1989), a composite term of translation and editing, is relevant to the production of technical (and thus multimodal) texts in a translation context. Stetting (1989) refers to transediting as an adaption of the ST, in terms of the language, the intended function and the culture of the TT. Chesterman, cited in Schrijver et al (2011), describes transediting as 'the sometimes

radical re-editing that translators have to do on badly written original texts: it includes drastic re-ordering [and] rewriting' (p. 2). Stetting shares this markedly new approach by presenting 'transediting on a spectrum "at one end [the free end] followed by dynamic translation"' (p. 379). These radical departures from the ST, either of the verbal or non-verbal modes, are similar to the maximal mediation technique in the concept of verbo-visual mediation (see section 2.3).

Despite these new requirements imposed on translators, multimodal text production techniques in translation have been neglected. For instance, Schrijver et al (2011) argue that rewriting (see section 2.3.3) – another term for transediting – especially of poorly composed STs, is a professional reality for translators, which has not been examined extensively in translation-process studies. Torresi (2008) makes a similar point by arguing that most of the didactic practices in mainstream translation classrooms are 'verbocentric', with very few exceptions, such as in multimedia translation. Some of the reasons for this disinterest could be attributed to some very practical and sensible reasons; for example, verbal-only training provides students and teachers with a clear focus on the verbal dimension of the text without devoting time to the non-verbal dimension that complicates things. Multimodal text production teaching and learning is time-consuming, and talking about pictures adds considerable time pressure to classroom time. Finally, it may distract students from the primary skills required in the translation market.

Tercedor-Sánchez et al. (2005b) propose that translation teachers should move away from these text-centred approaches in the translation course and embrace those that would include images. In technical and scientific web documents, there are images accompanying

a text that do not have a description, and this poses problems in their retrieval by search engines. In these cases, they argue, translation students should be encouraged to propose a text description (in the 'alt' attribute of an html document) for these images even if there is no ST verbal element. Moreover, even in cases where such a description does exist, they go on, in the TT it may have to be modified because the same description is given for different pictures in the site. This technique could be developed even further and introduced in the translation of print multimodal texts containing images so much complicated that could be incomprehensible to the TT readers.

In the context of teaching multimedia translation, Tercedor-Sánchez and Abadía-Molina (2005) had their students produce text descriptions (of images) in the TT when they were absent in the ST. The students were given pictures devoid of text (image-to-text activity) and were asked to describe them denotatively and connotatively. They were then asked to write down the lexis evoked by images. Finally, they had to suggest an appropriate context for these images to appear in. As a text-to-image activity, the students were given verbal elements and were then asked to visualize an appropriate picture. By visualizing a concept, the students had less difficulty in finding an appropriate translation solution.

The identification and description of visual material is a difficult task, and in some cases culture-dependent. Forceville (1996) conducted an experiment where he asked a (Chinese) respondent to identify and describe an advertisement for IBM where the only verbal element was the IBM logo. The problems faced by this person suggest, according to Forceville (1996), that pictures may not cross borders more easily than words and their interpretations may be dependent on cultural background knowledge. Therefore, it is

proposed that any similar teaching activity, at least for translation purposes, should be carefully designed to avoid confounding cultural factors.

Setting up exercises on the translation of the same multimodal text with and without its visual elements would prepare translation trainees to deal with real life problems. Torresi (2008) argues that it is not uncommon for clients to give translators a text without some or all of its visual elements. These elements may include a missing photograph, tabular information out of its table, a paragraph out of its box and other graphic conventions that will be adopted in the final version. If translators are denied access to this type of information they will also be left out of comprehensive text-making processes and subsequently fail to take into account all the modes in which the TT is to be encoded. These processes may also include the omission of certain non-verbal elements in the TT.

Horn-Helf (2005) claims that translators may have to omit visual elements (e.g. photographs), or change the types of figures (from pictures to sketches) in multilingual brochures to satisfy cultural conventions, or for localization/domestication purposes (see also page 16). While localization will not be discussed in detail in this thesis, its relevance lies in the fact that it

‘is a kind of intersemiotic or ‘crossmedium translation’ as it is a transfer that involves more than one language, but also more than one medium, that has become a fast-increasing social and economic reality’ (Valdés, 2008 pp. 227-228).

Valdes (2008) argues that localization is important for translators in order to communicate successfully to different markets and cultures that involve the translation of texts with multiple semiotic resources. In the case where the medium does not change, as the print advertisement, the need for intercultural communication may require translators to find images more familiar to the TT culture to accompany the verbal part of the advertisement (see sections 4.1.7 and 4.2.4). This requirement would depend on an in-depth study of the target market and culture. Besides finding alternative images, the localization process may also involve omitting visuals in the TT that exist in the ST or adding visuals in the TT that do not exist in the ST.

Horn-Helf (2007) describes how in the Russian translation of a German technical book, all photographs and four engineering drawings were omitted, while one chart was added. She speculated that these omissions could be attributed to a USSR-era practice where it was prohibited to take pictures of industrial installations or to reveal sectional drawings of process equipment. In these ideologically driven translations, we can only imagine the difficulties the translators must have faced when they were asked to follow these socio-cultural conventions and make the required omissions. Therefore, it seems a good teaching technique to introduce students to the translation of language pairs as diverse as English and Russian, at least in technical translation.

From a more radical perspective, Torresi (2008) openly declares that the verbal-only approach to translation training should be abandoned altogether. In order to highlight this need, Torresi (2008) gives the example of graphic designers possibly omitting a final paragraph without consulting the translator because 'it didn't fit into the space' of the PDF

file. In other cases, translators may dismiss as irrelevant the graphic designer's warning to keep the TT the same length as the ST. Even though such dogmatic positions are not easily adopted, in translation training involving some types of texts, such as advertisements, these strategies may work.

Advertising translation is one of the fields in TS where the traditional linguistic quality assessment criteria, such as faithfulness and respect for the ST, disappear altogether. Torresi (2008) argues that the success or failure of the translation of an advertisement lies in its commercial outcome. Since advertisements are mainly (if not almost always) multimodal texts, there is a need to establish MST quality assessment criteria. Yet, there is the paradox that while the verbal part of the translation of the multimodal text will be assessed against the traditional linguistic quality assessment criteria, the translation of the multimodal text, as a complete TT, will be assessed against some other (unknown thus far) criteria. Therefore, it is important to develop these criteria to be taken into account by translators so that the latter can have a say in the production phase of the TT as a whole and not only in the translation of the verbal elements.

Smith (2008) points out that translators, based on their working experience with illustrations and issues of layout, should be consulted on the appropriateness of visual configurations. While this may be true to an extent, here translators are called upon to take part in two different processes: firstly, in the translation of multimodal texts, where their responsibility is to translate the verbal elements, and secondly, in the entire process of producing the multimodal TT, from start to finished product, which entails working as a

team with the other stakeholders in the project, such as the graphic designer, the typesetter or the typographer.

This procedure would require a type of training that Kiraly (2001) calls a social constructivist and collaborative learning approach to translation training pedagogy. The importance of collaboration among students as a multiplier of multimodal-text creation has also been highlighted by Mills (2010). This collaborative work is seen as a strategy diametrically opposite to the dominant discourse of teacher monologue. This line of thinking would require translation teachers to adopt a reflexive approach to their own practices by allowing students to evaluate the teaching and learning processes in the classroom.

According to Tercedor-Sánchez et al.'s (2009) evaluation of one of their own translation courses involving images, their students became aware of two fundamental aspects regarding images: their key function in texts, and the type of information transmitted by them. In a previous evaluation of a similar course, Tercedor-Sánchez et al. claim that, in translation, images should be described 'with regard to their functional role within the text, for the purpose of interpreting their connotative features' (2005a, p. 145). Especially in technical texts, translators need to infer relevant aspects of visual concepts (e.g. graphs, diagrams, tables, maps) to develop visualisation strategies with regard to them. This approach to analysing images facilitates the learning of domain-specific terminology.

These transformations require would-be translators to become *literate* – that is, capable of using all their senses to understand and use verbal and non-verbal semiotic elements for

intentional communication – in multimedia tools, visual design, photo-editing techniques, etc. If translation teachers lack competence in specific areas, or they have to become semi-specialists in several subject fields, then consideration must be given to their professional development. An efficient way towards this direction is to foster visual creativity in students.

2.4.3 Using visual stimuli for creative translations

In the context of translating texts consisting of a high number of visual elements, the notion of creativity (see also section 1.2) has gained new impetus (Kussmaul, 2005). Creative translation is defined by Kussmaul as ‘visualizations [that] lead to shifts, transpositions, modulations etc., in other words, the translation involves changes when compared with the source text, thereby bringing in something that is novel.’ (2005, pp. 379-380). It is this addition in the TT, absent in the ST, that makes the translation a creative one.

Since images are not constrained by the traditional rules of verbal language, ‘creative translation [may be] related to translations with [an] unpredictable, non-institutionalized use of language’ (Cho, 2006, p. 3). In the translation of multimodal texts, if we accept that non-verbal elements could also assume the role of the verbal, then an extended view of ‘language’ may also involve the use of visual material. Since translation cannot be totally ‘creative’, in the sense that it is not created out of nothing but governed by the ST, visualisation and creativity could be approached as an instance of rewriting elements of the ST (Lefevere, 1992).

Based on the hypothesis that creative thought is visual thought, Kussmaul (2005) proposes the investigation of four visual stimuli: looking at real pictures, at suggestive frames in the ST, at suggestive scenic details in the ST or imagining scenic details constructed from memory. This investigation is based on the frame and scene theory, which is intended to facilitate the visualisation process for creative translations. Kussmaul (2005) applies this theory in TS (as illustrated in Figure 2.15) and claims that by visualizing a *scene* (mental picture) fitting a word (*frame*), the translator accomplishes a creative translation.

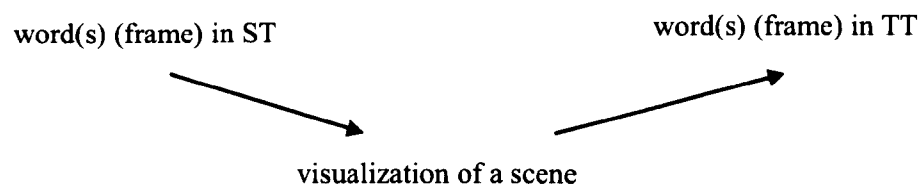


Figure 2.15 Frame and scene translation process

In a small experiment with his students involving the translation of the DVD cover of a film, Kussmaul (2005) found that although the students had not seen the film, the photograph of a scene on the cover helped them to visualize and produce a creative translation. This creativity had to do with a change of focus, from the participants (ST) to their specific situation (TT). Such an application of the visualisation and frame/scene theory in translating, according to Cho (2006), increases the chances of creative translations. It is proposed that forms of translation creativity other than literary and poetic texts be explored, namely more practical ones. This tendency is highlighted by Torresi (2008) who argues that, in marketing, visualisation may also represent a first stage of intersemiotic translation. It is suggested that a creative translation of multimodal texts into a given culture should include the manipulation of the visuals in order to make it more

appealing for commercial purposes. An application of this theory can also be seen in section 4.2.3.

Based on the same hypothesis that the process of visualizing and describing images from different perspectives triggers creativity, Tercedor-Sánchez et al. (2009) had their students produce texts by considering image-text relations from two opposite directions: ‘from-text-to-image’ and ‘from-image-to-text’. In the second direction, the students were asked first to analyse images devoid of verbal material, and then to make a list of the lexis evoked by these images. Before beginning their translations of the original ST, the students had to choose an appropriate context for these images, which included identifying the person who commissioned the work, potential recipients, and the primary use of the images. This further suggests that translation involving images is an activity that fosters creativity.

Tercedor-Sánchez et al. (2009) conducted another series of experimental studies to demonstrate how the visualisation and description of images could trigger creativity in translation. They propose two types of activities for translation courses: ‘analysis and description of images’, and ‘strategies that link the visual and verbal components of the text with previous and newly acquired knowledge’ (2009, p. 165). Translation problems involving the use of images in multimodal texts were solved by adopting creative solutions, such as image-based documentation and the production of other multimodal documents that were illustrated by these images. Although the experimental studies focused on technical translation and localization, these two activities could be adapted to any course, since images could appear in any type of text. Also, although technical translation, according to Byrne (2006), may not be creative but simply a reproductive

transfer process, the production of technical multimodal texts boosted students' creativity and connected translation tasks with technical writing.

Cho (2006) and Kussmaul (1995) point out that creativity (not only in translation) is not a talent but a skill to be acquired through training and education. Cho claims that if translation can be taught and further developed through knowledge of, and practice in, at least two languages, so can creativity. This is in agreement with Kussmaul's claim that no one is gifted with creativity but that it is a basic feature of mind, and as such, anyone can be creative in translation.

Similarly, Niska (1998) highlights the uniqueness of each individual in novel production by relating novelty to creativity. The term 'novel production' refers to any attempt by the translator to resort to 'novel ways of encoding an old message' (Neubert, 1997, p. 19). Such novelty is usually observed in translation solutions that deviate significantly from any precise and empirical definition found in a lexicon. The maximal mediation in the translation of the Greek title in the fertility magazine (see page 58) is an instance of novel (though ideologically driven) production. While Niska (1998) does not dismiss the idea of having translators trained in creative methods of translation, he points to the individual's inherent capacity to be open to new experiences, to form his/her own basis of evaluation and to experiment with new elements and concepts. What follows is that novelty, at least in the translation of multimodal texts, is a type of creativity. For example, in order to produce a novel word (e.g. a neologism), the translator would have to be creative, while a creative translation may not lead to a novel production, but simply to a successful choice. Therefore, it is important to understand this distinction when analysing translations that

involve visual elements so as to develop a more refined understanding of the translation of multimodal texts.

Though the authors in the previous paragraph may be right in principle, further investigation is required before we argue that the acquisition of creativity and translation share common characteristics and requirements. It is probably for this reason that Kussmaul (1995) is cautious about the prospects of education in translation creativity, describing such an endeavour as an ‘ambitious aim’. However, the concept of creativity may be particularly relevant to the training of multimodal text translation because the various non-verbal elements allow for deviations from proper translation, such as the examples above in subtitling and museum panels. The inherent difficulty in talking about images, which may involve using technical photographic terms, without a supporting text (Rose, 2007) raises the question of what kind of knowledge or special skills students should have acquired in order to ask specific questions about an image prior to translating. These new perspectives reveal the concern surrounding the need to consider more widely a range of approaches to translation training, such as the employment of subject specialists in the translation classroom.

2.4.4 Bringing subject specialists into the translation classroom

The idea of translators working closely together with other stakeholders, such as fellow translators and researchers, teachers, students (when training is in the form of teamwork) and clients, is not a new one (Oittinen, 2008). According to Torresi, ‘the translation of complex multimodal texts could be the product of a long decision-making process, not carried out by translators alone’ (2008, p. 69).

Torresi (2008) argues that translators may have to consult with the person who commissioned the translation and with professionals in specific fields. In advertising translations, which involve the adaptation of brand images, the translator's work is only one of a series of steps in the translation process, beginning with the commissioning of the translation and ending with the TT as a final product. This approach not only takes translators away from translation proper; it also places them in a professional environment which they have not been prepared for. This trend is highlighted by Van Meerbergen (2009), who discusses the way in which international co-productions of Swedish translations of Dutch picture books have led publishers, editors, writers and translators to work closely together.

This list could grow by adding experts in various subject fields. Schubert (2009) calls experts 'informants' who are mainly called upon to offer their expertise in technical information. Such a contact, according to Schubert (2009), is an activity that takes place mainly at the 'information research' stage. However, the translator could be in contact with an expert not only in the pre-translation stages, but also while translating a text and in the post-translation stage, when revising the translation. Seeking expert help to gain a better understanding of specialized texts is a habit that translation students should develop in the early stages of their training. Moreover, this habit could be developed into a skill, because it is one thing to ask for help and quite another matter to ask the right questions.

By developing the skill of identifying problems that cannot be solved by translators themselves, they actually 'raise problems and stimulate the client or the professionals they work with in order to find solutions together in the quickest possible way' (Torresi, 2008,

p. 71). This does not mean that translators of multimodal texts and the experts consulted should 'trespass' on each other's professional field of expertise, but rather that they should work in a collaborative way. An example of this kind of collaboration is provided by Walsh (2009), concerning a teacher who invited an expert to a film study classroom to demonstrate the *iMovie* application. In the context of the translation classroom, the teacher could have arranged for the manual of *iMovie* to be translated and then have had the expert answer the students' questions.

The call to bring experts into the classroom is also shared by Tercedor-Sánchez and Abadía-Molina (2005), who point out the importance of translators working in cooperation with specialists. Particularly in technical translation, metaphoric images can be deceiving to non-specialists and translators might find it difficult to identify the nuances of meaning. In medical translation teaching, Wakabayashi (1996) urges her students to contact the author of the translation task at hand for two reasons: firstly, to request copies of very recent references cited in the ST to gain background knowledge about the content of the text, and secondly, to obtain, among other things, information about non-verbal elements, such as colour photos for checking the exact colour to which reference may be made.

This teaching technique is also an instance of the increasing awareness of the role non-verbal elements may play in translation. Although Wakabayashi (1996) claims that, in a classroom scenario, obtaining this type of material (e.g. colour photos) would be almost impossible, I would propose sending the students to contact the client in person and discuss any relevant issues. However, in this case, it might be appropriate to contact clients in advance so as to fit this meeting into their professional schedule. In this collaborative mode of learning, the translation teacher acts as facilitator in the learning process and the

classroom is not separated from the real world. Pietro-Velasco et al. (2008) simulated a real-world condition for their students by arranging a translation brief with real clients and experts in subject fields. Though they do not give details about this activity, we could assume that it might include regular visits to the clients' and experts' workplaces. Additionally, seminars could be arranged with field experts in the disciplines in which the students are translating.

Translation students who have regular contact with subject experts will have acquired additional skills. Kussmaul and Tirkkonen-Condit (1995) argue that students who acquire expert knowledge in subject fields, coupled with traditional translation skills, will have an additional asset upon entering the translation market. In order to provide this type of training, translation teachers could play the double role of the 'expert in a given field and an expert in [translation] teaching' (González-Davies, 2004, p. 2). However, the call for translation teachers – and professionals as well – to be experts in a field should be seen in close relation with the reality that a good translator cannot specialize in a large number of subject areas (Byrne, 2006). Even when teachers are armed with a good and solid understanding of the basic principles and technologies of a subject field, they will never reach the level of competence that would make the professional expert in the classroom redundant. Obviously, teachers, students and experts make up a challenging educational mixture in the translation classroom. In these 'unconventional' learning situations, the teacher's catalytic role in this bidirectional mode of learning is, according to Kiraly (2001), an example of a social constructivist and collaborative learning approach to pedagogy.

There is however the risk, according to Kemmis, that the intervention of outside facilitators may ‘introduce significant distortions in ...[the]... practical, collaborative, or self-reflective’ nature of action research (1988, p. 176). This distortion may take the form of

the legitimization of practices by reference to outsiders’ reputations or ascribed status as “experts” or “authorities” rather than being based in the practical discourse of practitioners themselves (Kemmis, 1998, p. 177).

In reference to the translation classroom, the presence of the specialist may cause an imbalance between expert advice and the time allocated for creative brainstorming with the students.

Bringing together students and subject specialists is an opportunity for the former to hone what Lee-Jahnke (2005) calls ‘extra-linguistic abilities’, which include specialized knowledge of a specific domain. If we organize translation projects that would enable students to collaborate with these subject specialists, it would also be possible to achieve ‘maximum effect in autonomous learning and responsabilization’ (Lee-Jahnke, 2005, p. 362). This team spirit is highlighted by Risku and Pircher (2008), who propose that, at least in intercultural technical communication, translators and technical communicators could provide valuable support in the production of technical multimodal texts.

In such a complex translation project, translation students would also have to work with other stakeholders in product design, development and marketing (Gambier and Gotlieb, 2001). Moreover, the students would have the chance to collaborate with the producers of

non-verbal elements (e.g. graphics, photographs, maps) and gain more in-depth knowledge of complex extra-linguistic material. Torresi has also related teamwork with multimodal translation by arguing that the translator who is 'aware of the importance of non-verbal elements, and the resource they represent for translation, proves a more reliable team-worker and produces better target texts' (2008, p. 70). Torresi refers to a translator who contacted a publishing studio to suggest a change in a visual (translating an English sign into Italian) by means of photo-editing software. Although the visual remained unaltered, a translation of the notice was added as a caption.

However, there is no strong theoretical or empirical evidence that could relate non-verbal element awareness directly to increased translation competence or even to the ability to work cooperatively. Various issues of translation training, such as whether the suggestions for curriculum development are realistic and how they could be fitted in, will be discussed in section 5.3.

2.5 Research questions

In the introduction and the literature review, I highlighted the interdisciplinarity of the multimodal approach to TS. Accordingly, the research questions are intended to span different fields. The first research question examines three distinct research areas, namely semiotics, visual literacy and TS, through the perspective of twenty-four Greek undergraduates from foreign language departments. The second research question explores how these students mediate between the verbal and the visual semiotic elements while translating a multimodal text. The third research question considers the implications of translating English multimodal texts in the Greek translation classroom. These questions

will be answered by means of an action research study, as described in Chapter 3, and through a discussion of the findings in Chapter 4.

1. *What is Greek undergraduates' perception of the role of visual literacy in translation?*

If we accept that there is a change of balance between the verbal and non-verbal modes, then it follows that an examination of university students' perspective of the visual literacy approach to translation would have two implications: firstly, 'how these students perceive the role of visual literacy in TS, in general', and secondly, 'the extent to which they adopt a visual literacy perspective while translating multimodal texts'. The answer to this question will be based on data gathered from the students' performance while translating a multimodal text.

2. *How do Greek undergraduates mediate between the semiotic elements of an English multimodal text when producing its Greek translation?*

This question is based on the concept of verbo-visual mediation in translation, as it has been discussed in section 2.3.2. The question examines if undergraduates' translations reveal a specific reading of the verbal and visual elements of a multimodal text. By codifying the students' translations according to the scheme presented in section 3.3.2, an attempt will be made to assess how these students interpret both the verbal and the visual elements of the English text when producing its Greek translation. In addition, the discussion on the codifications will be cross-examined by reference to the other data-gathering methods.

3. Which techniques are effective for teaching Greek undergraduates the translation of English multimodal texts into Greek?

The third question consists of three subquestions: firstly, ‘To what extent do students use techniques of visual analysis in translating multimodal texts?’; secondly, ‘Does visual stimulus lead them to a greater degree of visual analysis?’; and thirdly, ‘What role would the “subject specialist” have in facilitating the visual analysis of multimodal texts?’

3. RESEARCH METHODOLOGY

I begin this chapter by presenting the overall research design and providing background information and an explanation of why action research was chosen as a methodology for my study. I then describe the methodological considerations, which include my role as a researcher, the multi-strategy research approach and, in particular, how my study mainly involved qualitative methods supplemented with aspects of quantitative analysis. Additionally, I describe the reasons for choosing the particular data collection techniques, and the data-text translated. The chapter concludes with a description of the method of analysis, the Five Step Process the students went through and the coding schemes of their translations.

3.1 The overall research design

In this section, I describe action research and its relation to reflective teaching the pilot study, the participants of the study and other background information.

3.1.1 Action research and reflective teaching

The arguments that action research is commonly used in translation studies (Cravo and Neves, 2008) and by several teachers in their everyday practices (Pennington, 1992) have contributed to the choice of action research as a methodology in this study (see section 3.1.2).

According to Kemmis (1988), action research is defined as a systematic approach to investigating one's own situation by using the iterative steps of planning, acting, observing, reflecting and replanning to develop local understanding and bring about

improvement. In Figure 3.1, I provide an illustration of his action research, following the diagnosis of a problem, and the subsequent order of the various steps.

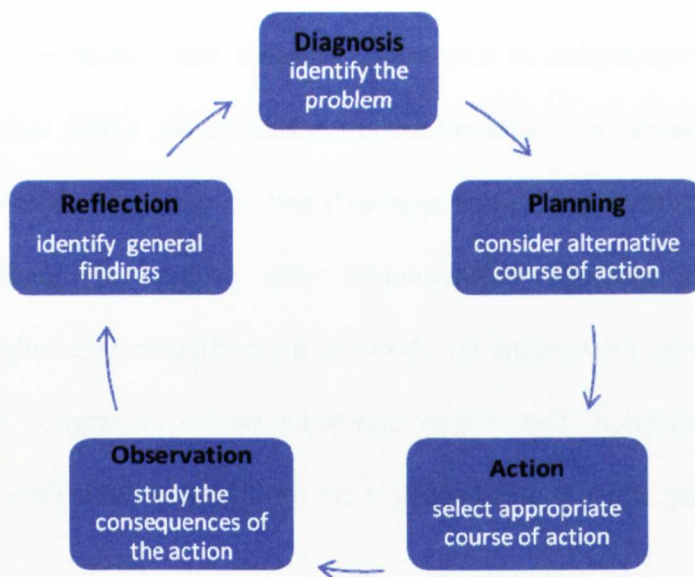


Figure 3.1 The action research cyclical process

A key concept in the definition of action research is *reflection*, because it is the last step of the cycle and the turning point that enables researchers to make the proper diagnosis and redesign the series of steps, as illustrated in Figure 3.1. Bearing in mind the importance of *reflection*, and before I present a fuller account of action research as a methodology (see sections 3.1.2 and 3.3.1), it is necessary to make a distinction between ‘action research’ and ‘reflective teaching’ in the broader area of language education. For this reason, I will use Pennington’s definition of ‘reflective teaching’, which states that

‘the term reflective teaching has come to signify a movement in teacher education, in which student teachers or working teachers analyze their own practice and its underlying basis, and then consider alternative means for achieving their ends [...]

The use of the term reflection in the context of instruction can be interpreted in the sense of (1) thoughtful consideration, as well as in the sense of (2) mirroring, symbolizing or representing' (1992, p.48).

In order to illustrate the difference between action research and reflective practice, let us take, for example, translation teachers who wish to address the perceived problem of their students failing to work collaboratively in the class. These teachers first collect information (by observing their own class) in order to obtain baseline data. If they were to stop at this point and ponder their data, thereby potentially gaining insight into their teaching, we would have an example of reflective teaching. However, if these teachers go on to conduct a series of activities, then we would have an example of action research. These activities would include the design of a list of strategies to overcome the problem and their implementation for a certain period. Afterwards, the teachers would evaluate the effectiveness of their strategies and produce a report which would describe the problems identified, the implementation of the strategies, and an evaluation of these strategies.

Therefore, the contribution of action research, as compared to reflective teaching, is the systematic implementation of planned actions as a result of observation and reflection on the data, as illustrated in the hypothetical example of the translation teachers. Additionally, while action research depicts a cyclical, spiralling sequence of a number of events in a longitudinal manner, the reflective teacher contemplates a problem at one point in time, without necessarily becoming engaged in a lengthy series of interventions.

Educational action research is a methodological approach that uses mainly qualitative rather than quantitative methods, and it is considered an appropriate way for practitioners to conduct their everyday work. Thus, as a translation practitioner interested in researching my own professional practice, I adopted action research in the area of translator education. In my research, of particular relevance is the participatory and cyclic nature of action research. The members of a higher education institute (see section 3.1.3) were studied while participating actively in a cyclical process (see section 3.3.1). In this research process, each turn marked the beginning of a new action cycle built on the understanding of the previous one.

3.1.2 The suitability of action research

My action research study involved a self-reflective cyclical process of diagnosing, planning, acting, observing and reflecting/evaluating (Kemmis, 1988), as illustrated in Figure 3.1.

Initially, the problem – namely the limited knowledge about the impact of non-verbal semiotic modes on the interlingual translation of multimodal texts – was identified. This was followed by the first cycle (in fact, the pilot study), which involved working out several possible solutions, from which a plan of action emerged. This involved the participation of four pairs of undergraduates from foreign language departments that went through a standard three-step translation process of a multimodal text, supplemented with a fourth image-analysis step. Each pair went through the translation process on a different day, in October 2009. Data from these translation processes were collected and analysed. The findings were interpreted and it was decided that the plan could be improved by

splitting one step into two and refining certain elements. The end of the first cycle made possible the re-assessment of the problem and marked the beginning of the second cycle, that is, the main tasks the participants went through that constitute the main focus of this research. This main research is represented in Table 3.4, and in cycles A and B (see Tables 3.5 and 3.6, respectively).

The preliminary analysis of the problem against the theoretical background of visual social semiotics and SF-MDA led to tentative solutions which, in turn, were implemented, observed, and analysed. The innovative solutions to specific problems might serve as a model for translation and visual literacy teachers. Rather than looking for objective and reliable results, I attempted to come up with trustworthy and substantiated results, within the time and word-limit constraints set by the EdD programme.

I was guided by the call for higher education to adopt a strong commitment to visual literacy (Bleed, 2005). Bearing in mind the reality that visual literacy is often considered non-academic, outside mainstream literacy curricula, and is often taught as part of a specialized course, I chose an action research methodology. Recognizing the need to introduce visual literacy for translation in a higher educational institute, I chose the *Aristotle University* based in my hometown (Thessaloniki) as the site of the study. While this type of qualitative research could be characterized as a case study, and more specifically Aristotle University's case study, conducted as it is at a particular educational site, it is not for three main reasons: firstly, in order to change the reality mentioned above, an intervention of sorts is required; secondly, I am researching my own professional

practices, and thirdly, it does not involve the investigation of naturally occurring cases, but is rather a researcher-created case (Burgess, et al. 2006).

The study of this unmapped area of translation was expected to end with ideas for further research, because the conclusions could not be regarded as definite. Thus, a qualitative approach offered more scope to understand undergraduate students' perceptions of visual literacy and translation. Cravo and Neves (2008) argue that action research is suitable within translation education because researchers can work collaboratively with stakeholders. In this study, I am one of the stakeholders in the sense of being a subject expert in the military domain, at least for the purposes of my research.

In order to reconcile being an expert to consult with also being the students' facilitator, I limited my expertise to providing clarifications and answering questions related to the military subject of the data-text to be translated. Although the data-text is an advertisement about a defence industry company, it is not specialized. It was meant to be comprehensible to an educated readership (i.e. people who have a basic education and are regular readers of newspapers) with no military background. In this collaborative enquiry, the students were also seen to contribute as informed collaborators.

3.1.3 The participants in the study

In order to choose the participants for my study, I contacted academic staff from Aristotle University's four foreign language schools (English, French, German, and Italian) and requested their help to find fourth-year undergraduate students as participants in my study. Eight students were required for the pilot study and twenty-four for the main research,

from each school. In this research, the students were assigned the task of translating an English multimodal text into Greek and other visual-based tasks.

Once I had been given a random list of potentially available students, I contacted all of them via e-mail and asked them to participate in this study. I outlined the purpose of my research, the students' roles as participants, and the duration of each meeting (about 3.5 hours). I had some reservations about the long duration of these meetings because it is a common consideration among researchers that 'in today's world it is not easy to find people who are willing to volunteer...much time' (Chiaro, 2004, p. 144). I arranged a personal meeting for each of the first four pairs of students who responded positively. All participants were volunteers and no second call was made after the initial contact. It was my intention to create a research environment where the students would not get the feeling that they were called to be tested, but to be active collaborators in an almost real-life translation situation.

I had set two criteria for choosing these students. First, they should have taken at least one course in translation and, if possible, courses related to visual literacy. Although a single course in translation is not enough by itself to qualify students as having been trained as would-be translators, it was considered important to be familiar with some basic principles of translation. Second, they would preferably form 'matching pairs'. According to Kussmaul (1995), in a matching pair no member dominates the discussion due to idiosyncratic or other reasons (e.g. friendship) and this is an effective research strategy in dialogue TAPs. Given my limited access to university students, as an outsider to Aristotle University of Thessaloniki, and in accordance with Kussmaul's definition of 'matching

pairs', I decided that the students could form pairs on the grounds that they were friends or fellow students.

By recruiting students from four language schools, I aimed to prevent English (the ST language) from becoming a confounding variable which might distort the results of the research. In other words, if the students from the school of English produced markedly diverse translations to those from the other three schools, then the analysis would also have to take into account the impact of the English language on the latter students. In line with the empirical work of Risku and Pircher (2008), my research was designed as a form of intervention in translation practices, as well as an opportunity to survey attitudes.

In order to elicit information about students' familiarity with visual literacy skills (relevant to research question 1), in translation practices (relevant to research question 2) and in translation training (relevant to research question 1) I gave them a questionnaire (see Appendix A). The students, in some cases, formed matching pairs, and in some respects not. The age (between 21 and 23 years old) of most students is typical for undergraduates. As such, their general, encyclopaedic and professional real-life knowledge is quite limited, which could hinder their ability to analyse and visualize material full of intertextual references. The limited (or lack of) professional experience seems to place students in the broad category of inexperienced translation trainees in the last year of their four-year university studies. The majority is highly likely to enter the professional translation market. However, since the average number of translation courses (5-8) is relatively small compared to the total number of courses required to get their degree (40), it is doubtful whether they should be classified as translation trainees or (future) graduates with a

translation specialization. The fact that most students had difficulty identifying which courses were visually-related makes their categorisation as visually (il)literate more problematic. Bearing in mind the fact that they had attended a relatively small number of translation courses and the inherent difficulty in evaluating their visual literacy level, it is assumed that their academic knowledge was adequate for the purposes of this research.

Furthermore, more than half of the students declared that they knew each other from the university, either because they were friends or simply fellow students. The fact that the female students by far outnumbered the male students was not surprising in the context of foreign language departments in Greek universities. Thus, all students were assumed to enter the research on an almost equal footing. In other words, the students, in their majority, were close enough to be labelled 'matching pairs' (Kusssmaul, 1995), at least for the purposes of this research, and in particular, for dialogue TAPs.

3.2 Methodological considerations

In this section I delineate my role as a researcher, I describe the multi-strategy I adopted, the method of analysis, the data collection techniques, and the data-text to be translated.

3.2.1 Multi-strategy research

The research was approached from three different paradigms, the post-positivism, interpretivism and postmodernism. Each paradigm provided me with the set of beliefs and a view of the nature of the world that define my place in the research. According to Burgess et al, the post-positivism paradigm accepts that 'absolutes are difficult to

establish, but it still strives for 'objectivity' (2006, p. 54) and it combines quantitative and qualitative methods of data-collection and analysis; in the interpretivism paradigm 'all phenomena can be studied and interpreted in different ways, mainly because people and situations differ' (2006, p.55); The postmodernism paradigm 'seeks to break down conventional boundaries [and] draw attention to how permeable and movable [they] can be' (2006, p.55).

From a post-positivist perspective, I acknowledge that it would be difficult for the students, and myself, to establish a definitive reading of images, at least compared to the verbal elements. However, some degree of objectivity was gained through a combination of research methods, in other words, through triangulation, and my observation that some readings are more likely than others. I also adopted an interpretivist approach so that the students could be allowed to interpret for themselves the multimodal text under investigation. Moreover, a postmodernist approach facilitated the breaking down of the conventional boundaries between the visual and the verbal by drawing students' attention to the permeability and mobility of these boundaries.

Therefore, my research design combined elements of postpositivist, interpretivist and postmodernist approaches (Burgess, et al., 2006). A postpositivist stance allowed me to analyse the visual as objectively as possible, while recognizing that it is difficult to establish absolutes. Also, it enabled the combination of qualitative and semi-quantitative approaches to data collection and analysis. The interpretivist paradigm suited the intersubjective study and interpretation of the visual by the researcher and the students, who attributed meaning to a phenomenon under investigation. However, it was recognized

that this interpretivism was made in a specific socio-cultural context. The postmodernist approach was adopted in order to show that there are no fixed or conventional boundaries between the visual and the verbal. Additionally, I aimed to draw translation researchers' attention to the fact that the verbal and the visual intermingle in the translation process, thereby raising their visual awareness levels for translation purposes.

The methodological basis for this study lies in a unified approach to qualitative and interventional methods (in the form of translation and visual analysis tasks) to meet my needs as a practitioner-researcher. A primary need was to design a practical methodological tool to provide answers for the research questions (see section 2.5). This involved an action research approach and coding the students' translations according to a scheme (see Table 3.8) that is based on verbo-visual mediation (see section 2.3.2) so as to obtain data that could be quantified. In addition, the research design followed a process model by exploring the strategies adopted to solve problems in a translation literacy practice; this was an effort to increase educational reflexivity on my part, and on the part of the students (Moore, 1999; The Open University, 2007).

By combining qualitative and interventional methods, I sought to form what Shortall calls 'a comprehensive tool which could provide insights into the specific and the general patterns of behaviour and translation skills' (2001, p. 7). In order to gain such insights, I designed a practical qualitative tool to examine the processes that take place in an MST situation so as to gain (often subjective) insights into performance in translation. In this tool, the researcher plays a key role.

3.2.2 The researcher's developing awareness in this study

In my research, I collected data that required me to be friend, unobtrusive observer, and intervening practitioner. In this section, I aim to demonstrate how I developed an awareness of the issues concerning my changing role throughout the research.

Hellawell (2006) claims that one of the hallmarks of a good thesis is the ability to be conscious of the selection and modification of the research methodology. If we accept such a reflexivity as remedial in research, then it would require an openness, the participation of others, and negotiation about the ownership of data and about the uses that I put it to (Bassey, 1995). The significance of being reflexive and ethical, in the sense of developing research relationships with the participants (at least in action research), is highlighted by Rallis and Rossman, who argue that 'ethically reflexive practice is [important] to conducting a trustworthy study' (2010, p. 495). One of the means by which qualitative researchers could develop reflexivity is the 'insider-outsider' concept (Hellawell, 2006).

My role as a practitioner of translation and research student of the Open University, and my investigation of the MST procedures adopted by undergraduates in Aristotle University, made me an 'outsider' to the latter. The fact that I was not *a priori* familiar with the setting and the people I was researching gave me the scope to become a neutral observer and to collect data from the research experience. Working in the field with participants over time, I expected to become familiar with them. Although 3.5 hours may not have been enough to 'pollut[e] my objectivity' (Hellawell, 2006), by adopting the ideas of each pair of students, there was the likelihood of adopting students' collective

perspective as a result of the consecutive meetings with them. Therefore, I openly declare that in this research I was also an insider.

My insider status is also qualified by my dual professional identity: (a) a professional translator (with a personal interest in researching my own practices) and (b) an Officer in the Greek Army, an 'expert' in military subjects, at least for the purposes of this research. Drawing on my own experience, it was expected that discussing military issues (especially) with female students would have been problematic. Since the most intimate knowledge that women have in Greece about the army is through the stories told by relatives or friends about their military service, or from watching war films (less likely), I tried to prepare myself for 'naive' (at least from a male officer's perspective) questions and statements about the army. This perspective introduces a gender dimension to the research, in terms of the language used. That is, I had to refrain from gender stereotyping which, according to Winslow, characterizes military males who are 'using sexist humour and sexist language' (2010, p. 35). This dual status could be an advantage to my research because ideally, according to Hellawell, 'the researcher should be both inside and outside the perceptions of the researched' (2006, p. 487).

Embracing this view during the research, I slid along the insider-outsider continuum rather than adopting the one extreme or the other; such a slid can be seen in the second retrospective interview (see section 4.1.10) where I acted both as a researcher and as a translator. By engaging the students in the research process, I combined their representations with my own interpretations in an attempt to build researcher-participant relationships that would allow us to 'share representation and demonstrate caring

reflexivity' (Rallis and Rossman, 2010, p. 497). An example of this slid can be seen in the second retrospective interview (see sections 4.1.10 and 4.2.4). Kiraly (2001) has already proved the appropriateness of such a constructivist approach to researching the education of translators. He managed to motivate his students by giving them the opportunity to assume responsibility for their own learning by means of collaborative working and intensive discussions and negotiations. I hoped that my view of the teacher-researcher as an advisor and coordinator would also be readily accepted by the students.

Although the research has been conducted in a Greek higher education context, the Aristotle University, it was not my primary intention to evaluate its programmes in translation and visual education. Yet, I intend to report my findings in the form of honest and critical feedback, bearing in mind the fact that my knowledge and information of the students' university training come exclusively from their own perspective. By using this scientific lens, I tried to design, conduct, and report a credible and trustworthy study. Rallis and Rossman (2010) call this kind of rigorous ethical reasoning 'caring reflexivity', which is, nevertheless, on its own insufficient to guarantee ethical practice. What matters is how the relationships between the researcher and the participants are recognized and honoured within a specific context.

Bassey (1995) warns action researchers about the dangers of this emotive and cognitive involvement in the research process. Thus, my qualitative approach required a great deal of self-awareness and self-criticism as a researcher so as not to misguide the students and bias the research findings. In other words, I had to make sure that my approach did not lead students to give me the answers I would like to hear but their own ones. In addition, I have

taken into account the implications of such a personal involvement in the research to avoid introducing distortions to 'the questions asked, the data-gathering and analytic techniques employed, and the interpretations and findings' (Kemmis, 1988, p. 176).

During the consultations with the students, I aimed to establish an analytical rather than an evaluative attitude (Johnson, 2008) so as to 'peel the onion' and to solicit their impression of the analysis of the image and the translation process. It was envisaged that my feedback would give them the opportunity to suggest more than one solution to a problem and to express themselves in a collaborative way, with other translators (the second member of each pair) and an expert (myself).

Data derived from expert opinion, observational studies, interviews, quality design and personal communication are, according to Sackett et al. (1997), in the lowest hierarchy of what constitutes 'evidence'. These types of data show what is happening in practice and thus have a lower internal validity as a result of potential differences between participants. If we accept this claim, it would be harder to attribute the differences in the outcome to this research. On the other hand, this lack of control means that these data will be more firmly based in the real world, in that the pairs of students more closely reflect translation practice.

At the same time, I was interested, similarly to McIntosh (2010), in becoming one of the practitioner-researchers who reflect on their experience within their own individual value bases and understanding. This involves asking the right questions based on things the researchers witness and constructing a rigorous methodology. In my case, I witnessed a

lack of experimental studies in the translation of the verbal part of multimodal texts, which led me to choose various methods of analysis.

3.2.3 Methods used

Bernardini (1999), Lauffer (2002) and Kussmaul (2005) propose detailed (mainly empirical) research methodologies for the exploration of the translation process, which informed my research. The common thread in all these methodologies is a three step process where firstly, they inform and prepare the students, secondly, they continue with the actual translation process, and thirdly, they conduct one or more retrospective interviews. All three of them used think aloud protocols, audio/video recordings and direct observation methods in quite a similar way. The three methodologies differ in that Bernardini (1999) gave the translations produced by the participants to four professional translators and teachers of translation for scoring and marking, which considerably increased the reliability of her research. Lauffer (2002) used specialized software (*Translog* and *Camtasia*) to monitor the students' activity on the computer screen to obtain quantitative reinforcement of assumptions about translation. Kussmaul (2005) used real pictures and visualisation in his attempt to trigger creative translations and proposes to combine electronic tools, such as *Translog*, with TAPs to examine what happens during the participants' pauses.

I also used qualitative methods to address the way I, as an action researcher, interact with the students, and how this interaction impacts on translation outcomes. The qualitative action research began with the observation of the problem so that the behaviour could be interpreted from the participants' point of view. I collected information associated with

what Basil (2001) calls students' cognitive processes that take place in translation situations in an attempt to produce some (often subjective) insights into translation performance.

In this 'multi-strategy research' (Burgess et al., 2006), one semi-structured questionnaire sketched out the students' personal profile and educational background (see Appendix A). An open-ended questionnaire was meant to set in motion image analysis (see Appendices C and F) while a dialogue TAP would extract information about the underlying mental process throughout the tasks. Since it was deemed necessary to trigger information that would not be verbalized during the TAPs, and to replay the translation process for monitoring purposes, a retrospective interview was also conducted and computer/video-generated data were gathered (see section 4.2.4). An interview was also conducted to assess students' overall attitude towards this experience (see section 4.2.5 and Appendix B). These data were used to reflect on each meeting with the students and modify it as appropriate for that which was to follow.

Although the sample is too small to allow for statistical analyses, the qualitative data were quantified and used to test assumptions about the translation process, and to gain an overview of the translation strategies. The quantification was made for the qualitative data obtained from the study of the mental aspects of the translation process; for instance, by measuring the distribution and frequency of the strategies employed according to the coding scheme used, as I will explain later, and the use of dictionaries, electronic tools, and Internet references. The variations in the tasks, that is, the different order in which the students went through the five-step process (see Tables 3.5 and 3.6), were introduced by

the researcher to quantify the effects of a specific treatment (see stage 4d in Table 3.4) on students' ability to analyze images.

Finally, I used two software programs: *Keylogger*, to monitor Internet activity and the use of electronic references, and *Hypercam*, which produces a video record of the activity on the computer screen. While the data provided by the former were discussed with the students during the tasks, the data from the latter were analysed after all the tasks were over. These two programs, the electronic dictionaries (two bilingual EN-GR, Hyper Lexicon and GWord, and one monolingual English, Collins COBUILD) and Internet connection were available on my laptop.

3.2.4 Data collection

All data were collected in twelve meetings with the students, conducted between October 2010 and February 2011, on a different day for each pair of students. Six of them were conducted at the translation training centre *metaphrasis*, and six at students' homes upon the individuals' request. Two semi-structured questionnaires and an open-ended one enabled me to elicit information on personal data, educational background, visual-literacy levels, and problems, thoughts, and feelings. Two semi-structured interviews yielded important data about their performance in completing the various tasks.

The first semi-structured questionnaire (Appendix A) was meant to elicit information about personal data and their educational background consisting of both closed and open-ended questions. This combination was chosen in an attempt to gather as much data as possible without students becoming weary right from the beginning. The information gathered was

used primarily to provide an overview of their background in translation and visual literacy, and also their familiarity with some of the research methods used. The second semi-structured questionnaire (Appendix B) at the end of the Five Step Process (5SP) (see section 3.3) provided an assessment of the 5SP and an opportunity for me to assess and re-design the next meeting in light of my reflexive approach to the cyclical process of this action research. A potential threat to the internal validity of my research is the limited amount of time given to the students to complete these questionnaires (to save time for other stages), which might have prevented them from giving accurate and complete answers. It was hoped that the triangulation of the data would mitigate this effect on validity.

The open-ended questionnaire (Appendix C) was designed to generate data about students' ability to analyse the image and to become their first point of contact with the visual before they began translating. It is based on Harrison (2003), who provides a practical tool for image analysis corresponding roughly to Kress and Van Leeuwen's (2006) three metafunctions. The tool's relevance to my study lies in the fact that it is addressed to those who may lack the time or inclination to gain an in-depth knowledge of visual social semiotics. Following Robson (2002), the questions required a quick, descriptive account of the topic, without formal hypothesis testing. It was necessary to collect factual data but there was uncertainty about what and how much information students would be able to provide. A closed set of questions would not be possible because the nature and range of the students' likely answers about image analysis could not be known in advance to be quantified. Taking into account that the students would have had problems with the technical terminology (e.g. photographic discourse), each question was supplemented with

a brief ‘tip’ that would (hopefully) elucidate its meaning. Tables 3.1 to 3.3 summarize the function of the three metafunctions that formed the basis for this questionnaire, complemented with the word ‘visual’ to emphasize their relevance to this research.

Table 3.1 Representational visual metafunction

What is the picture about?		
Structures	Processes	Verbiage
Narrative	Action	Actor & Goal
	Reactional	Reactor & Phenomenon
Conceptual	Classificatory	Intensive & Attributive clauses
	Analytical	Carrier & Possessive Attributes
	Symbolic	Identifying Clauses Existential Clauses

The narrative and conceptual structure of the image is described here. The narrative action is created by vectors forming an oblique line, and the reaction by eyelines acting as vectors between the participants. In conceptual images, when participants are grouped together they form members of the same class (classificatory) who are displayed in terms of a ‘part-whole’ structure (analytical) or are important for what they ‘mean’ (symbolic). This metafunction was an important step for the students, since, according to Abousnnouga and Machin (2010), viewers, in their first contact with an image, should not overlook the actual act of description in their eagerness to determine what something means.

Table 3.2 Interpersonal visual metafunction

How does the picture engage the viewer?		
Features	Processes	Verbiage
Image Act and Gaze	Demand (goods & services)	Speech Act
	Offer (info)	Person
Social Distance and Intimacy	Intimate distance	Style
	Close personal distance	
	Far personal distance	
	Close social distance	
	Far social distance	
Perspective – The Horizontal Angle and Involvement	Public distance	Attitude (value/loading/type)
	The frontal angle	
	The oblique angle	
Perspective – The Vertical Angle and Power	High angle	Graduation (force/focus)
	Medium angle	
	Low angle	

In the interpersonal visual metafunction, when the participant looks directly at the viewer, he or she demands the attention of the latter, who feels a strong engagement with the participant. When the participant is looking outside the picture or at someone/something else within the image, it becomes an object of contemplation for the viewer, creating less engagement than the aforementioned sense of demand. When the participants in the image appear close or distant to the viewer, the resulting effect is a feeling of intimacy or

distance, respectively. This distance could range from the most intimate ‘head and face’ to the most public ‘a distant group of people’. The perspective refers to the relationship between the positions of the participants and the viewer, or the participants within the image. At the horizontal angle, when the participants are presented frontally, the angle creates stronger involvement on the part of the viewer as it implies that the participants are ‘one of us’. When they are presented obliquely to the viewer, the angle creates greater detachment since it implies that the participants are ‘one of them’. At the vertical angle, the participants ‘looking up’, ‘horizontally’ or ‘down’ have less, equal or more power, respectively.

Table 3.3 Compositional visual metafunction

How do the representational and interpersonal metafunctions relate to each other and integrate into a meaningful whole?	
System	Elements
Information Value	Left/Right Top/Bottom Centre/Margin
Salience	Size Sharpness of focus Tonal contrast Colour contrast Foreground/Background
Framing	Framelines Pictorial framing devices
Modality	Colour saturation, differentiation, modulation Contextualization Depth Illumination

Participants on the left side of an image have the value of 'given' knowledge (e.g. familiar, common-sense, problem), while those on the right are 'new' (e.g. unfamiliar, illogical, solution). Participants at the top have the value of being 'ideal' (e.g. emotive, imaginary, what might be, often the pictorial elements of an image), while those below represent the 'real' (e.g. factual, informative, practical, often textual elements in an image). Participants in the centre provide the nucleus of information to which surrounding elements are subservient.

The larger the participant, the greater the salience, while out-of-focus participants have less salience. Areas of high tonal contrast have greater salience and strongly saturated colours have greater salience than 'soft' colours. Finally, a participant in the foreground has greater salience than the participant in the background. The way participants are framed affects whether they are seen as connected or separate. The lines within an image divide participants or hold them together, while the stronger the lines around the image, the greater the connection.

The concept of modality – how we feel about the visual message's validity and reliability, in terms of (full) colour, black and white and depth – is particularly useful in discussing images and reality. Images with a higher modality appear more real than those with a lesser modality. These visual cues that indicate 'realness' generally run along a spectrum of possibilities; for example, full colour indicates a high modality, while black-and-white a low modality; a fully conceived background indicates a high modality, while a complete absence of background a low modality; deep depth indicates a high modality, while no

perspective a low modality; the fullest representation of light and shade indicates a high modality, while the absence of light and shade a low modality.

Data from this questionnaire were combined with the TAP produced by each pair of students. TAP, as a data-collection method, fits my study because the students were not yet fully trained to become translators and the data yielded could be used to find out where they had problems with visual analysis for translation purposes. As it has been told already, the results of this analysis could be used for pedagogical purposes in translation training (Kussmaul and Tirkkonen-Condit, 1995). There was a methodological concern over combining TAPs with other highly productive activities, such as completing a questionnaire or translating a text. There was a chance that this increasing 'cognitive overload' (Ericsson and Simon, 1993), coupled with the fact that they would not receive specific training in producing TAPs, would render the students unable to verbalize. As a remedy, Van Someren et al. (1994) propose a warming-up phase where the subjects are given the opportunity to practise thinking aloud, and some stages in the 5SP played this role. A general methodological problem with TAP studies in translation research is that they are considered as 'valid only inasmuch as they have been collected under very rigorous experimental conditions' (Bernardini, 1999, p. 9). In order to create similar conditions, I designed a multi-stage method of analysis.

On the basis that both dialogue and monologue TAPs carry the same 'empirical validity' (Kussmaul, 1991), only the former type was used. However, there is a paradoxical mismatch between monologue and dialogue TAPs. The kind of dialogue that comes up could be classified as a form of conversation, though the students are engaged in focused

activity, sort of independently. In relation to the image-based conversation, they are not really having a conversation but rather verbalizing their thoughts in a 'dialogic' way, creating some interactivity. In addition, it seems to be more natural to have a pair of students (untrained in producing TAPs) talk to each other, rather than have individual students talk to themselves. This lack of training in producing introspective data, according to Ericsson and Simon (1993), may compromise its reliability, and this factor is taken into account in the data analysis. Either way, there are doubts as to whether the students can verbalize their thought processes while they are thinking, especially when they are 'forced' to do so.

The image-based questionnaire was followed by two retrospective interviews. The first interview produced data about the questionnaire itself, such as clarification of ambiguous or difficult questions, and triggered information that was not verbalized during the TAPs, allowing students to elaborate on their (written) answers orally, which is more flexible. These data, along with the *Keylogger* and *Hypercam* software, were used as a supplement in my analyses after each meeting was over. The second interview was based on my own analysis of the data-text, where each translation point was taken in turn, and also gave students the opportunity to comment on my points.

Video recording equipment was also used throughout the meeting to record TAP verbalisations and other non-verbal activity, such as the use of hard-copy dictionaries. Although video is an obtrusive data-collection method, it allowed me to be absent during the third step, where students had to verbalize while doing the main tasks. In this way, I avoided social interaction with the students, which, according to Ericsson and Simon

(1993), should be avoided at all costs during the verbalisation. They argue that one of the essential conditions in introspective data collection is for the researcher to interfere as little as possible in reporting the data. Though this interaction may take place between the participants, dialogue TAPs (between the members of the pair) carry the same empirical validity as monologue TAPs. Although Seliger (1983) questions the reliability of introspective data, he admits that it may be useful for generating hypotheses about mental processing — in my case, the hypothesis that would-be translators do not take into account non-verbal semiotic elements.

3.2.5 The data-text

Advertising, according to Torresi, ‘is one of the multimodal genres which are most suitable for analysing the interplay of verbal and visual elements’ (2008, p. 66). Also, print advertisements with two main modes of communication, verbal and visual articulated in complex interactions, are ‘a good starting point for studying aspects of visual communication’ (Van Leeuwen, 2005, p. 8). If we accept these arguments, then the advertisement shown in Figure 3.2 is an ideal data-text for this research.

This data-text was used to extract the words to be translated and the photograph for image analysis. This advertisement posted in the newspaper *DefenseNews* is about *BAESystems*, a British multinational defence, security and aerospace company headquartered in London, UK. Figure 3.2 shows a scanned image of the entire two-page spread data-text and its structure according to Caple’s (2008) genre, which she calls ‘image-nuclear news stories’.

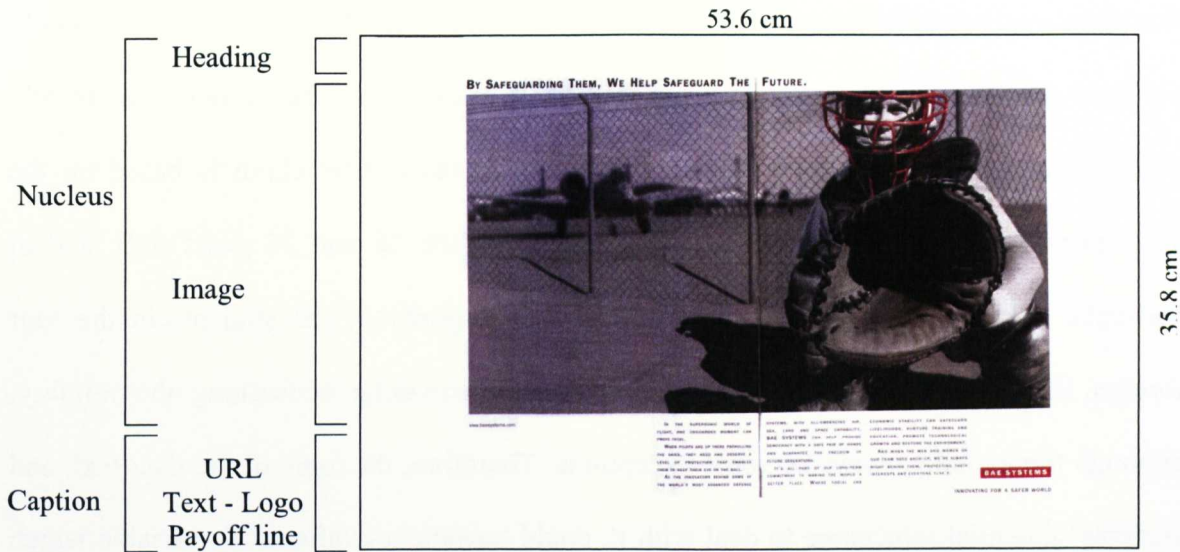


Figure 3.2 The structure of an image-nuclear advertising story

Figure 3.2 shows that the photograph takes up the most (in comparison to the verbal elements) space on the two-page spread. This suggests that any analysis (visual or verbal) of the data-text should take into account this imbalance, no matter which semiotic element is supposedly the dominant meaning-making mode. The data-text is reproduced in ‘Appendix D’ so that the verbal elements are legible to the reader.

DefenseNews is a subscription-only newspaper published by the US Army and distributed worldwide. The topics include military issues, the defence industry, civil-military cooperation, and defence policy. The intended readership is thus the professional military and anyone who has an interest in defence and socio-political issues where the military is involved. The verbal element is a general type of text without specialized terminology or military jargon. In fact, a non-native English language speaker would not find it difficult to understand, and the potential difficulties caused by the words *supersonic* and *patrol* could be easily solved by consulting a general bilingual dictionary.

It was not unreasonable (prior to each meeting) to expect that although the students would not have problems in understanding the text, such a text would be (almost) completely outside the scope of university students' reading interests. This claim is based on the assumption that university students (most being between 18 and 24 years old), and in particular female students (the gender of the vast majority of the students in the four foreign language schools), have no true interest in anything concerning the military, although there could always be some exceptions. Therefore, the topic of the data-text, and students' potential reluctance to deal with it, could become a confounding variable which might distort the results of each meeting with the students.

It has already been said that the data-text shares common characteristics with the 'image-nuclear news story' genre. According to Caple,

the heading and the image work together to form a nucleus, from which the evaluative stance of the newspaper towards that particular story can be read. The caption then goes on to locate the image participants and their actions within a particular context (2008, p. 126).

The word-image interplay may initially engage the reader in literal play between lexical items in the heading and the image. This interplay (including the caption) may also take other forms, like alliteration and allusions that test our cultural knowledge.

The data-text here follows a slightly different structure. This is not a news story, but an advertisement where the elements at the 'caption level' appear in a slightly different

format. Usually, the caption of a photograph in a newspaper is a short verbal description of a few lines. Here, in addition to the lengthy text, there are three elements that are characteristic of an advertisement. First, there is the web address of the advertised company. Second, there is the commercial logo, which is a combination of verbal and visual elements – the name of the company in a white font against a red background. Third, a payoff line (below the logo) is used to conclude the advertisement and is designed to promote the image of the company. In other words, it serves the role of the general truth or rule of conduct expressed by the company. Therefore, this data-text could be considered an expansion of the image-nuclear news story, potentially labelled as an ‘image-nuclear advertising story’.

If we follow Barthes’ (1961a) argument that the two structures of the press photograph, namely text and image, should be studied exhaustively, then each component of this ‘advertising story’ (heading, image, extended caption) should also be studied by the translator. Thus, in this new type of text, not only the image has a structural autonomy, but also the heading and the caption. As a result, the relationship between the various semiotic elements is an important factor to be taken into account.

Overall, this particular type of text suits the purposes of this research for four main reasons. Firstly, as an active army officer, I will be able to approach it as a subject expert rather than a layman. Secondly, it contains a visual that is enlarged and visible enough for the viewer to distinguish the pictorial elements. Thirdly, taking into account the time constraints of the 5SP, the reading of the verbal element by the students is not time-consuming. Fourthly, and in order to keep the analysis as simple as possible, all the

constitutive parts of this multimodal text appear in front of the viewer without him or her having to turn the page to see the rest of the verbal or other visuals. That is, if the students had to turn a page to read another verbal element or more visuals, they would lose sight of the interplay between the visual and the verbal in its totality. This implication is important because, methodologically speaking, MST research should at the moment be kept as simple as possible, and these four factors could ensure it.

3.3 Method of analysis

In this section, I first present the structure of the 5SP (summarized in Table 3.4), followed by the coding schemes I applied to the students' translations. The aspiration here is that if the proposed method of analysis could help raise university students' multimodal awareness when translating a text whose topic is so foreign to them, then this method could be a true pedagogical force-multiplier when students are faced with texts with which they are more familiar.

3.3.1 The Five-Step Process

In addition to the three-step process I mentioned earlier, the work described by Tercedor-Sánchez and Abadía-Molina (2005a) and Tercedor-Sánchez et al. (2005b; 2009) in Chapter 2 has given me useful insights, enabling me to structure the five-step process (5SP).

Tercedor-Sánchez et al.'s (2009) 'text-to-image' and 'image-to-text' activities motivated me to design the various orders in which the students went through the 5SP (see stage d in Table 3.4) as a means of activating vocabulary by analysing or visualizing images while reading a text. Yet, they argue that a drawback of the proposed procedure is the difficulty

in describing images without textual support. Though they do not explain the exact nature of this drawback, it seems to be related to Rose's (2007) argument that 'there is no clearly established methodological framework to discuss the uses of photographs in social science research', or to the readers' need for guidance on how to read images.

Table 3.4 provides an overview of the various stages for each pair of students who went through the 5SP. This process was the outcome of my reflections on the pilot study and involved the addition of photo elicitation (stage d4) and the translation of preselected words (stage d3), rather than the entire verbal part of the data-text.

Table 3.4 Overview of the five-step process

Step	Type	Stage	Brief description
1st	Introductory meeting	(a) meet in person	Meeting in a relaxed environment to get to know each other, hand out the consent form and introduce the study.
2nd	Pre-session phase	(b) give instructions	Describe the mode of the translation session and encourage students to ask procedural questions.
		(c) pre-session questionnaire	Get information about the students' background (Appendix A).
3rd	Main session	(d) image-based and translation-based tasks	<p>1. <i>Image analysis</i>: students complete an open-ended questionnaire on the data-text's photo (Appendix C).</p> <p>2. <i>Find key words</i>: students find and discuss 10-12 words.</p> <p>3. <i>Translate the preselected words</i>: students translate the words given (see Table 3.7) with reference to the data-text's photo (Appendix D).</p> <p>4. <i>Photo elicitation*</i>: students read a verbal-only version of the data-text and choose the accompanying photo from among the four provided (Appendix E).</p> <p>5. <i>Revision</i>: students revise the translations</p>

			produced in stage d3.
4th	Retrospective interviews	(e) review the main session tasks	Discuss with the students their answers (using <i>Keylogger</i> to monitor certain aspects of the entire process) and provide further comments.
		(f) MST approach to translating the data-text	Comments and discussion on students' answers, in relation to the researcher's points about verbo-visual interactions in translation.
5th	Post-session phase	(g) post-session questionnaire	Students complete a questionnaire to evaluate the whole translation session (Appendix B) followed by a brief discussion on the answers.
		(h) informal discussion	Students comment on any aspect of the translation session.

* Photo elicitation is a type of research interview where the interviewer introduces photographs to elicit information from the interviewee (Harper, 2002).

The five-step process (5SP) is divided into five distinct steps (1-5) which are subdivided into a number of stages (a-h). The 5SP was designed to last about three to four hours. Each pair of students went through this process on a separate day. Stages d1-d5 (presented in detail below) were conducted in a different order to allow for critical reflection and potential amendments in-between two consecutive sessions. Table 3.5 shows the order in which the first eight pairs of students went through stages a-h in action research cycle A.

Table 3.5 Action research cycle A

Pair of students	Chronological order of conduct of stages a-h
1st pair	a → b → c → d (1, 2, 3, 5) → e → f → g → h
2nd pair	a → b → c → d (4, 1, 2, 3, 5) → e → f → g → h
3rd pair	a → b → c → d (2, 4, 3, 1, 5) → e → f → g → h
4th pair	a → b → c → d (2, 1, 3, 5) → e → f → g → h
5th pair	a → b → c → d (1, 2, 3, 5) → e → f → g → h

6th pair	$a \rightarrow b \rightarrow c \rightarrow d (4, 1, 2, 3, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$
7th pair	$a \rightarrow b \rightarrow c \rightarrow d (2, 4, 3, 1, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$
8th pair	$a \rightarrow b \rightarrow c \rightarrow d (2, 1, 3, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$

As shown in Table 3.5, all pairs of students in cycle A went through stages a-h in exactly the same chronological order, starting with stage a, then stage b, and so on. What is different is the order of stages d1-d5 (the 3rd step in Table 3.4) and the fact that only half of the pairs (2nd, 3rd, 6th and 7th) went through stage d4. The reflection on cycle A led to cycle B, which is presented in Table 3.6 (see also section 4.1.1).

Table 3.6 Action research cycle B

Pair of students	Chronological order of conduct of stages a-h
9th pair	$a \rightarrow b \rightarrow c \rightarrow d (4, 1, 2, 3, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$
10th pair	$a \rightarrow b \rightarrow c \rightarrow d (4, 1, 2, 3, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$
11th pair	$a \rightarrow b \rightarrow c \rightarrow d (2, 4, 3, 1, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$
12th pair	$a \rightarrow b \rightarrow c \rightarrow d (2, 4, 3, 1, 5) \rightarrow e \rightarrow f \rightarrow g \rightarrow h$

Table 3.6 shows that the last four pairs of students went through the 5SP in a way that permitted the inclusion of photo elicitation in stage d. For clarification purposes and ease of reference in the discussion that follows, it is reminded that ‘step’ refers to the five main steps that comprise the 5SP, ‘stage’ refers to the sub-components (a-h) of each step, and ‘session’ refers to the main tasks (stages d, e, and f). Also, the number next to each stage described below stands for the minutes allocated to that particular stage.

Meet in person (stage a)

Meeting with each pair of students in a relaxed environment to get to know each other was considered necessary in order to give them the consent form and introduce them to the study. This was an important step in light of my interventionist role in the research, and for that reason I did not send the consent form by e-mail. Recording people on video and collecting personal information raised the issue of the ethical conduct of the research. Students not only had to give their written consent prior to participating, but they also had the right to know how the data would be processed.

Give instructions (stage b) – 5'

I briefly described the various stages of the 5SP and encouraged students to ask procedural questions. This stage was incorporated in case I did not have the chance to meet some students in advance, and to sort out last minute questions.

Pre-session questionnaire (stage c) – 10'

The students completed a questionnaire (see Appendix A) to provide me with information about their personal and educational backgrounds. The limited amount of time available to the students to answer was taken into account when analysing the relevant data.

Image analysis (stage d1) – 50'

Students completed the open-ended questionnaire (see Appendix C) on the data-text's photo to help them start analysing and interpreting the various semiotic modes. Students were required to fit their answers in a two-page answer sheet attached to the questionnaire

to avoid lengthy answers. The students were explicitly told to answer spontaneously in as few words as possible. The purpose here was to trigger visual analysis, not to test their degree of visual literacy. In order to examine if the students would take into account the verbal part of the text while analyzing the image, some pairs of students had access only to the accompanying image of the text.

Find key words (stage d2) – 10'

The students were asked to work on their own and find 10 to 12 key words which, according to them, would pose a particular problem to the translation of the text (without having to translate them). This was mainly a brief confidence-boosting task. It was expected that if the students picked out some of the preselected words to be translated (see stage d3) they might consider it a personal achievement. Also, it could become a first attempt to read the data-text critically from a translation point of view. In order to examine if the students would take into account the accompanying image of the text while looking for the key words, some pairs of students did not have access to the accompanying image of the text.

Translate the preselected words (stage d3) – 45'

The students were asked to translate eleven preselected words (see Table 3.7) and comment on them, in a kind of 'annotated translation' task. Evidence based on the pilot study indicated that it would take too much time to translate the entire text. I set two criteria in choosing the words to be translated. The words should be denotatively/connotatively related in some way to a particular visual element; for example,

the phrase ‘a safe pair of hands’ is related denotatively to the visual element *mitt*, which is worn on the hand. Second, their understanding is crucial for multimodal text analysis even though their translation into Greek is not particularly problematic; for example, the phrase ‘in the supersonic world of flight’ is translated quite literally in Greek. However, if the image is the primary message, then the translation should be rendered in close relation to the particular aircraft shown in the photo.

Table 3.7 Selection process of the words to be translated

Words chosen	The visual element to which the word is related	Problematic translation
a) ...by safeguarding them...	baseball player, aircraft, pilot	NO
b) ...supersonic world of flight...	aircraft	NO
c) ...pilots are up there patrolling the skies...	pilot	NO
d) ...keep their eye on the ball.	baseball player	YES
e) As the innovators behind some of the world's most advanced defense systems...	baseball player's face and metal wire face mask	YES
f) ...a safe pair of hands...	mitt	YES
g) ...future generations.	baseball player	NO
h) ...livelihoods...	army life and leisure time	YES
i) ...training and education...	military training and school education	NO
j) ...our team...	BAESystems Company	NO
k) ...right behind them...	shadow behind the baseball player	YES

As it will be demonstrated in the data analysis section, the above words could have been related to several other visual elements. The categorization of the words' translation as

problematic or not is indicative, since a specific strategy adopted by another translator may turn an unproblematic translation (according to my categorization) into a problematic one. The selection of these words is part of my reflexive approach to the research where the researcher is also a teacher and facilitator.

Photo elicitation (stage d4) – 10'

This stage was meant to trigger lexical knowledge through visualisation, by employing the method of photo elicitation (Harper, 2002). Before describing how photo elicitation was used in this research, it should be explained how it resembles Barthes' (1964) 'commutation test'.

This is a test where we select a particular signifier in a text, and then consider alternatives to this signifier and the effects of each substitution in terms of how this might affect the sense made of the sign. If the text is accompanied by a visual element, the alternatives and substitution might involve imagining the use of a close-up rather than a mid-shot, a substitution in age, sex, class or ethnicity, substituting objects, a different caption, etc. It could also involve swapping over two of the existing signifiers and changing their original relationship. The influence of the substitution on the meaning can help to suggest the contribution of the original signifier and also to identify syntagmatic units. For instance, Abousnnouga and Machin urge Van Leeuwen to use photo elicitation in his work to 'think about the meaning potential of typefaces that are tall versus stocky or slim versus fat' (2010, p. 139).

Following Harper's argument that 'photo elicitation [is] useful in studies that are empirical and inspires collaboration' (2002, p. 22), I adopted this method to interview the students. The students in each pair worked as a team and compared and contrasted four photos (see Appendix E) while reading the verbal part of the data text without viewing the accompanying photograph of the baseball player. These four photographs share some visual elements and are relevant to some parts of the verbal element of the data-text. For example, all the photographs have the colour red and more than one participant, but only photographs B and C show the sky. In contrast to Rose's (2007) suggestion to be engaged with the interviewees in the discussion of the photographs, I left students on their own in the hope of stimulating them to relate visual and verbal signifiers and to start asking 'Which photo shows *pilots*?', 'Where are they shown *patrolling the skies*?', 'Which are the *defence systems*?', etc. This technique was expected to allow for open expression while providing concrete talking points. In this way, Denton argues, the

photos and their content become the focus of discussion, not the subjects themselves... [and] often, this triggers confidences and subjects reveal their values as well as attitudes (2005, p. 412).

Revise the translations (stage d5) – 10'

The students were asked to revise their translations based on the activities completed in the preceding stages. The purpose here is that translation revision is a standard procedure in every translation task.

Review the translation process (stage e) – 35'

In order to elicit information not given during the TAPs, I asked the students to comment on their answers in the various stages of Step 3. Simultaneously, I used *Keylogger* to monitor the use of electronic dictionaries and any Internet activity. For the purposes of my research, I set it to catch all keystrokes, capture the screen, log the programs being run and closed, and monitor the clipboard contents and websites visited.

MST approach to translating the data-text (stage f) – 45'

I aimed for interpretations and overinterpretations as a tool for widening the discussion. By using my own MST analysis of the preselected words as a basis for discussion with the students, I intended not to force them to take sides, but to get feedback so as to raise their translation awareness levels. At this stage I aimed to help students become ‘reflexive of the[ir] situation and the[ir] experience’ (McIntosh, 2010, p. 23), in other words, to become aware of their own positionality vis-à-vis a(n) (translation) event, what Hicks calls an ‘act of reflexivity’ (1991, p. 47). From a translation training perspective, it was also meant to become an opportunity for them to get accustomed to resolving any queries they may have with a subject expert of the text to be translated.

Post-session questionnaire (stage g) – 10'

The students had to fill in another short questionnaire (see Appendix B), saying whether they felt that the session had interfered with their thought processes, how they felt about the tasks, and so on.

Informal discussion (stage h)

This informal, and unstructured, conversation at the very end of the 5SP could be seen as a transitional phase from ‘laboratory conditions’ to ‘real life’, so that students leave the research site as unaffected as possible. It took place while we were still at the research site (e.g. collecting material such as documents and photographs, turning off the video camera or switching off the computer) and even while we were leaving the site. The problem here was that if any worthwhile data came up I had to rely on my memory to recall them some time later and write them down.

3.3.2 The Coding Scheme

The coding scheme of the students’ translations is based on the concept of verbo-visual mediation in translation and it is summarized in Table 3.8.

Table 3.8 Coding scheme for multimodal semiotics translation

Translation	Code	Mediation
With the visual element	<i>WiVis</i>	Visual minimal (VisMin)
Across the visual element	<i>AcVis</i>	Visual partial (VisPar)
Against the visual element	<i>AgVis</i>	Visual maximal (VisMax)
With the verbal element	<i>WiVer</i>	Verbal minimal (VerMin)
Across the verbal element	<i>AcVer</i>	Verbal partial (VerPar)
Against the verbal element	<i>AgVer</i>	Verbal maximal (VerMax)

The coding scheme in Table 3.8 is based on Connelly’s (2008) realization that reading representation, intertextuality and discourses in visual texts is dependent on one’s

consciousness of how to read the author's intention in three ways. Firstly, in '*with the text*', the author has already constructed a particular meaning of the text and the reader shares it. Secondly, in '*across the text*', some elements of the author's pre-constructed meaning of the text are shared by the reader, but other elements are not, and thus the reader makes alternative interpretations. Thirdly, in '*against the text*', the reader questions and contests the author's pre-constructed meaning making completely new interpretations.

The problem with Connelly's categorisation is her claim that we could find the meaning that is constructed by the author. Since it is very difficult (if not impossible) to establish the true meaning implied by the author of a verbal text, let alone a multimodal one, I argue that my coding refers to only one of a number of possible meanings implied by the author. Additionally, the basic assumption here is that the interventions refer to rendering the ST verbal elements into TT verbal elements while the ST visual element is transferred unaltered to the TT text. This means that the verbo-visual associations made in the ST may not be symmetrical to the verbo-visual association made in the TT, as a result of the different (but related in various ways) verbal elements but the same visual element in both ST and TT. As an expansion to Hatim and Mason's (1997) mediation, in verbo-visual mediation, the basis for the verbal TT may not always be provided by the verbal ST but also (or even exclusively) by the visual ST.

When the translation is with the visual element (WiVis) and with the verbal element (WiVer), or against the visual element (AgVis) and against the verbal element (AgVer) it is making a deliberate intervention and corresponds to Hatim and Mason's (1997) 'minimal' or 'maximal' mediation (see Figure 3.3), respectively. This intervention depends

on how and with what ideological motivations the visual and the verbal element have been taken into account. On one hand, in WiVis and WiVer the translation reveals a reading that aligns with an interpretation of the ST visual element and a reading of the verbal element, respectively. On the other hand, in AgVis and AgVer the translation reveals a reading that aims to question and to contest an interpretation of the ST visual element and a reading of the verbal element, respectively. When the translation is across the visual element (AcVis) and across the verbal element (AcVer), it is making a less extreme and more neutral intervention and corresponds to Hatim and Mason's (1997) 'partial' mediation (see Figure 3.3). This intervention depends again on how and with what ideological motivations the visual and the verbal elements have been taken into account. That is, in AcVis and AcVer the translation reveals an interpretation that is alternative to the ST visual elements and a reading that is alternative to the ST verbal, respectively.

My coding offers a different approach to the verbal-visual interface, in comparison to other similar approaches. For example, in Pereira's (2008) three-point schema in book illustration, the picture illustrates literally the verbal, the verbal focuses on 'specific narratives in the picture' and the picture is adapted to 'a specific ideology or artistic trend'. While in Pereira's coding it is implied that the three code-points are mutually exclusive, my coding offers a different perspective. For example, in the data-text (see Appendix D), the most obvious way to relate the verbal 'up there patrolling the skies' to the photograph is through the visual *aircraft* that is seen neither on 'patrol' nor in the 'skies'. As such, the verbal is not reproduced literally in the photograph, it does not focus on a specific narrative in the photograph but rather on the concept of the aircraft as a flying machine (though capable of patrolling in the skies), and it does not seem to be adapted to a specific ideology

or artistic trend. Thus, the phrase could be double coded as AgVis, from a narrative point of view, or as WiVis from a conceptual point of view.

Also, Pereira's coding is based on the idea that the pictures have been produced for a specific reason, to accompany a verbal element (in a single language). Another contribution of my coding scheme compared to this (monolingual) approach is the way it engages verbal-visual interrelations and verbal-verbal translation (from a ST to a TT). This combination is achieved by using the concept of verbo-visual mediation.

Unlike Hatim and Mason's (1997) mediation (see a visual representation in Figure 2.3), my mediation framework, illustrated in Figure 3.3, would allow translators to slide along two axes in the same or in diametrically opposite directions.

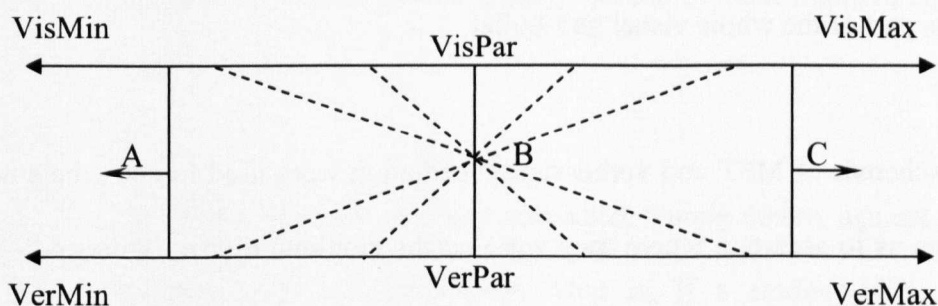


Figure 3.3 The axes of verbo-visual mediation

As it can be seen in Figure 3.3, translators may move exclusively towards minimal verbo-visual mediations (line A), exclusively towards maximal verbo-visual mediations (line C), or adopt the partial verbo-visual mediation (line B). The dotted lines indicate the diametrically opposite movements towards both maximal and minimal verbo-visual

mediations. It is noted that although the dotted lines cross the partial line B, they indicate verbo-visual mediations that constitute highly deliberate interventions. However, the more the movement on one axis is towards the partial point, the less deliberate becomes the total verbo-visual intervention, at least in comparison to more extreme cases.

An example of this sliding along the two axes can be seen in Figure 2.13. The rendering of the ST pronominal 'one' with the TT noun 'bullet' is an instance of VerMax and VisMax mediation. On the verbal axis, the translator is sliding to the maximal end and intervenes in the translation by replacing the implicit 'one' with the explicit 'bullet' that will actually come out of the gun. At the same time, on the visual axis, the translator is also sliding to the maximal end and intervenes in the translation process by interpreting that the 'one' refers to the (invisible) 'bullet' and not the (visible) gun. However, in terms of the type of the coding, it could be argued that the translation is an instance of VisPar because the word 'bullet' forms part of the whole visual gun-bullet.

The coding schemes of MST and verbo-visual mediation were used to code the students' translations so as to ascertain where they were on the continuum (see Figures 4.2-4.5). It should also be noted that my coding scheme does not imply that the closer a translation is to the VisMax or VerMax end the more it would qualify as an MST. A successful MST is based on the translators' ability to identify which direction (VisMin-VisMax or VerMin-VerMax) meets their needs each time an MST-oriented strategy is required. This echoes Mason (1997), who argues that the translator's intervention in translation, or *voice*, is a matter of intent and irrelevant to success.

The fact that the application of this scheme is based on my own analysis of the data-text raises the issue of the replicability of my research, which may compromise its external validity. In order to make this method relevant to ‘audience creativity’ (Rose, 2007), the coding assumes that different viewers would see the image in different ways. While recognizing this weakness, my intention is to

produce a coherent and illuminating description of and perspective on a[n] [MST] situation that is based on and consistent with the detailed [subjective] study of that situation (Schofield, 2007, p. 183).

If other researchers used the process called ‘naturalistic generalization’ (Stake, 1978) and recognize the similarities and differences with the findings from my study, they could apply them to understanding other similar situations, albeit with a modified coding. In this kind of generalization, researchers, Stake argues, ‘should be both intuitive and empirical’ (1978, p. 6).

The success of the methodological tool was measured, among others, against its ability to capitalize on students’ previous experience. That is, if a student with little or no background in visual analysis demonstrated a less marked development in MST than another student who was familiar with visual analysis, then it could be assumed that the methodology is successful as long as the students are already initiated in visual literacy.

4. RESULTS, ANALYSIS AND DISCUSSION

In Chapter 4, I present, analyse and discuss all the data collected from the various stages in the 5SP. For ease of reference, it is reminded that ‘step’ refers to the five main steps that comprise the 5SP (see Table 3.4), ‘stage’ refers to the sub-components of each step, while ‘sequence’ refers to the different order in which the stages of the 5SP were conducted.

I begin by outlining the two different cycles A and B and the way A affected the conduct of the stages overall. I then present the results for each stage in the 5SP. This presentation will be supplemented with a series of tables and graphs to illustrate the discussion. Afterwards, there will be an analysis and discussion of the findings structured around the five steps of the process. Finally, I will answer the research questions based on the data yielded.

4.1 Results of the five step process

The discussion in this section is structured around the stages in the 5SP.

4.1.1 The pairs of students in action research cycles A and B

The first four pairs of students went through the 5SP according to action research ‘cycle A’ (see Table 3.5). After I had analysed the data in cycle A, I reflected on the students’ performance and observed that the most interesting data (in terms of the students’ ability to relate visual elements to verbal ones) yielded from the 2nd and the 3rd pair, possibly because they included photo elicitation (stage d4). In order to verify that this observation was not accidental, the next four pairs of students (5th-8th) followed the same cycle A, but with a focus on photo-elicitation by giving more time to the students to discuss the four

photos (see Appendix E). Since I observed the same tendency, the last four pairs went through 5SP according to the cycle B (see Table 3.6).

The students generally did not express any complaints during the 5SP. In addition, they did not even ask for a break, though they were repeatedly urged to have the lunch specifically prepared for them. In the sections following, I present the data I have gathered in all the stages, regularly referring to cycles A and B, as appropriate.

4.1.2 Pre-session questionnaire (Stage b)

Here I collected information about the students' personal, educational and professional identities, and their degree of familiarisation with visual literacy and translation (see Appendix A). This type of information is summarized in Table 4.1 below. The numbers in the 'Answers' column refer to the total number of respondents.

Table 4.1 The identity of the students

Appendix A questions	Answers
Sex	Female: 20; Male: 4
Age	21 yrs: 10; 22 yrs: 4; 23 yrs: 6; 26 yrs: 2; 27 yrs: 1; 28 yrs: 1
Depart.	English: 6; French: 6; German: 6; Italian: 6
1	Greek Literature: 1; Italian Language and Literature: 1; French Language and Literature: 1; History and Archaeology: 1
2	No: -; Maybe: 6; Probably: 6; Yes: 12
3	Four courses: 5; Five courses: 6; Six courses: 4; Seven courses: 7; Eight courses: 2

4	None: 2; One course: 6; Two courses: 5; Three courses: 8; Four courses: 3
5	No: 10; Limited: 11; Some: 2; Extensive: 1
6	Never: 20; Sometimes: 1; Frequently: 2; Always: 1
7	Poetry, literature, newspaper & magazine articles, science and technology, EU texts, journalism
8	Never: 14; Occasionally: 5; Several times: 5; Regularly: -
9	Part of a project during university studies: 6
10	Never: 18; Once: 6; Often: -; Several times: -
11	No: 24; Limited: -; Some: -; Extensive: -
12	Never: 24; Once: -; Often: -; Several times: -

According to Table 4.1, the vast majority of the students were female, which is not surprising for foreign language schools. Seventeen percent of the students had a second university degree, while the average age is typical (at least in Greece) of a fourth-year undergraduate student. Half of the students were thinking of becoming professional translators and the other half were determined to become so. The total number of translation courses taken by the students by far outnumbers the visual-related courses. On average, the students had limited or no professional experience in translation. Also, the students were not accustomed to consulting experts when they had to translate texts written in a specific terminology or a particular register. The range of texts the students preferred to translate ranged from humanistic (poetry) to highly specialized (EU texts). Most of the students had no previous experience in working on a translation project in a collaborative way. Almost all the students had never been video/audio-recorded while taking part in a translation session. Finally, none of the students had been trained before in introspective reports, or taken part in a translation session that involved the production of introspective reports.

4.1.3 Pre-session discussion (Stage c)

This stage was quite short since most of the students were already familiar with the purpose of the 5SP. Only the two pairs with whom I had not met before asked for information about my research. Four pairs requested to finish in less than three hours for personal reasons.

4.1.4 Image analysis (Stage d1)

In stage d1, five students did not complete the questionnaire in the time they were given. These students described the questionnaire as too long to be completed in the time allocated. Although the questionnaire was answered in a different order (see Tables 3.5 and 3.6), the answers given (see Appendix F) did not vary significantly, in terms of who provided them, the number of words used for each answer and the type of information provided. For that reason, there has been no categorization of the answers and only the cycle (A or B) they were given in is provided.

Although the answers in cycle B are by far outnumbered by those in cycle A, they differ in qualitative terms. In question 1a, the *aircraft* and *helmet* are qualified as *fighting* and *protective*, respectively. In question 1c and 2b, the *player's shadow* has become a participant although no student in cycle A had identified it as such (question 1a). In question 1d, the *aircraft* and the *player* are engaged in an 'active' process, a *fight*, while in cycle A they are engaged in a 'passive' process, *protection*. In question 2a, the source of the *intense look* and the *sense of readiness* are attributed to a verbal element, the *ball*. In question 2e, the meaning of the photo is related to two visual elements, *dimmer* and *clearer*, that is, the salience and the sharpness of focus of the two participants. A different

placement of the participants, the addition of a child giving a flower to a soldier, and a variety of colours are some of the elements the students would prefer if the photo had to convey a different meaning. In question 3a, the answers given in both cycles are much more similar to each other than in the other questions. The placement of the player/aircraft to the right/left or bottom/top, is considered to play an important information role in conveying the meaning of the photo. It is also worth noting that some questions (mostly 1e, 2d and 3e) were actually rephrased rather than answered.

Although the students were engaged in a discussion, completing the questionnaire was an individual effort where the members of each pair did not try to arrive at mutually-accepted answers. There have been instances where some students had identified the shadow of the player as a potential participant, but then decided not to include it. At times the discussions between the students were fruitful and vividly conducted, leading to insightful comments, and at times there were silences of several minutes. But with very few exceptions, the students answered the questionnaire without referring to the verbal elements of the data-text. Finally, the students considered the image-based questionnaire rather long, but they did not seem to be in a rush to ‘get on with it’.

4.1.5 Find key words (Stage d2)

All the students completed this stage in the time allocated. Ten students did not find any words and they did not explain why. Table 4.2 shows the key words identified by the students (for reasons of comparison, see Table 3.7 for the words/phrase given to the students for translation). The italicized items indicate that some students identified only part of the phrase. These students were considered as having identified the whole phrase on

the grounds that reference to the particular items shows an awareness of the problem they may pose to translation.

Table 4.2 The words identified by the students in stage d2

		Words	Number of students who identified it
The words appear in Table 3.7		(keep their eye) <i>on the ball</i>	14
		(supersonic world of) <i>flight</i>	5
		<i>livelihoods</i>	12
		<i>patrolling</i> (the skies)	11
		(As the innovators behind some of the world's most advanced) <i>defense</i>	10
		<i>systems</i>	
Do not appear in Table 3.7		BAE (Systems)	5
		growth	3
		unguarded moment	7

According to Table 4.2, several students identified almost half of the preselected words (or at least part of them, as shown in italics) as playing a key role in the translation of the data-text. Throughout this stage, according to the video recordings, all the pairs were silent and there was no discussion between the students. Upon giving the students the list with the preselected words to translate, those who had found some of these words were enthusiastic.

4.1.6 Translate the preselected words (Stage d3)

The criteria for choosing the words to be translated by the students are shown in Table 3.7.

All the students completed this stage in less than half the time given. The students'

translations are listed in Table 4.3 in which the numbers 1-11 correspond to the data-text's words, while the letters are given for ease of reference to indicate how many different translations have been produced.

Table 4.3 Students' translations of the preselected words

Phrase	Greek translations	
1.	a. διασφαλίζοντάς τους b. όταν τους διασφαλίσουμε c. εάν τους διασφαλίσουμε	
2.	a. στον υπερηχητικό κόσμο των πτήσεων b. στον κόσμο των υπερηχητικό πτήσεων	
3.	a. οι πιλότοι βρίσκονται επάνω περιπολώντας τους ουρανούς b. οι πιλότοι στα ύψη περιπολούν τους ουρανούς c. οι πιλότοι βρίσκονται στους ουρανούς περιπολώντας	
4.	a. εστιασμένοι στον σκοπό τους b. συγκεντρωμένοι στον σκοπό τους c. εστιασμένοι στον στόχο	d. απορροφημένοι στον σκοπό τους e. έχουν το μυαλό τους στην μπάλα f. παρακολουθούν το μπαλάκι
5.	a. ως οι καινοτόμοι πίσω από κάποια από τα πιο προηγμένα αμυντικά συστήματα του κόσμου b. ως οι καινοτόμοι πίσω από κάποια από τα πιο προηγμένα αμυντικά συστήματα παγκοσμίως c. ως οι πρωτοπόροι κάποιων από τα πιο προηγμένα αμυντικά συστήματα του κόσμου d. ως οι πρωτοπόροι των πιο προηγμένων αμυντικών συστημάτων παγκοσμίως e. ως οι πρωτοπόροι των πιο προηγμένων αμυντικά συστήματα στον κόσμο f. ως οι καινοτόμοι που βρίσκονται πίσω από κάποια από τα πιο προηγμένα αμυντικά συστήματα παγκοσμίως g. ως οι καινοτόμοι πίσω από τα πιο προηγμένα συστήματα προστασίας του κόσμου	

6.	a. σε ασφαλή χέρια	d. παρέχοντας ασφάλεια
	b. ένα αίσθημα ασφάλειας	e. σε σίγουρα χέρια
	c. διασφάλιση	
7.	a. μελλοντικών γενεών	c. επόμενων γενεών
	b. γενεών που θα ακολουθήσουν	d. γενεών του μέλλοντος
8.	a. να ζήσουν	c. την επιβίωση
	b. τρόπους ζωής	d. τα μέσα να ζήσουν
9.	a. αγωγή και μάθηση	d. άσκηση και εκπαίδευση
	b. εξάσκηση και εκπαίδευση	e. εξάσκηση και μάθηση
	c. ανατροφή και μάθηση	
10.	a. η ομάδα μας	
11.	a. είμαστε πάντα στο πλευρό τους	d. είμαστε πάντα με το μέρος τους
	b. είμαστε πάντα δίπλα τους	e. στεκόμαστε πάντα στο πλευρό τους
	c. πάντα τους υποστηρίζουμε	

Table 4.4 shows a back-translation into English of students' Greek translations. The underlined words indicate a relation to the visual aspect of the coding scheme.

Table 4.4 Back-translation into English of the students' translations

Phrase	Back-translation into English
1.	a. safeguarding them
	b. when we safeguard them
	c. if we safeguard them
2.	a. in the <u>supersonic</u> world of <u>flight</u>
	b. in the world of supersonic <u>flight</u>
3.	a. the pilots are up there <u>patrolling</u> the skies
	b. the pilots up high <u>patrol</u> the skies
	c. the pilots are in the skies <u>patrolling</u>

4.	a. focused on their <u>goal</u>	d. absorbed by their <u>goal</u>
	b. concentrated on their <u>goal</u>	e. have their mind on the <u>ball</u>
	c. focused on the <u>target</u>	f. watch the [little] <u>ball</u>
5.	a. As the innovators behind some of the most advanced <u>defence systems</u> in the world	
	b. As the innovators behind some of the most advanced <u>defence systems</u> worldwide	
	c. As the pioneers of some of the most advanced <u>defence systems</u> in the world	
	d. As the pioneers of the most advanced <u>defence systems</u> worldwide	
	e. As the pioneers of the most advanced <u>defence systems</u> in the world	
	f. As the innovators that are behind some of the most advanced <u>defence systems</u> worldwide	
	g. As the innovators behind some of the most advanced <u>systems of protection</u> in the world	
6.	a. in safe <u>hands</u>	d. providing <u>safety</u>
	b. a feeling of <u>safety</u>	e. in sure <u>hands</u>
	c. safeguard	
7.	a. future generations	c. next generations
	b. generations that will follow	d. generations of the future
8.	a. to live	c. survival
	b. <u>ways of</u> living	d. <u>the means</u> to live
9.	a. <u>culture</u> and <u>learning</u>	d. <u>training</u> and <u>education</u>
	b. <u>practice</u> and <u>education</u>	e. <u>practice</u> and <u>learning</u>
	c. <u>nurture</u> and <u>learning</u>	
10.	a. our team	
11.	a. we are always <u>by their side</u>	d. we are always <u>on their side</u>
	b. we are always <u>next to them</u>	e. we always stand <u>by their side</u>
	c. we always <u>support</u> them	

As a whole, some pairs were thinking aloud through brainstorming, expressing their concerns and even engaging in playful activity. In only five pairs did the members seem to

make a genuine effort to discuss each other's translation solutions and to offer alternatives. In most cases, although the students were thinking aloud while translating, they did not take the opportunity to comment on each other's translations.

According to Table 4.4, most students translated 'livelihood' using the old Greek (called *katharevousa*) expression '[the means] to live', which is frequently used as an everyday phrase today, or with the first Greek equivalent provided for each of the English entries in the dictionaries used. The translation of phrases 1, 2, 3, and 10 shows a certain consistency, in terms of vocabulary, syntax, or grammar. A wider range of translation solutions is demonstrated in phrases 4, 6 and 11, where there is also a tendency to relate the translation to visual elements (the *ball*, the *hands* and, *side/next* as a spatial arrangement). However, it could not be verified, based on TAP or video-observation data, whether these efforts were made while choosing their translations or during image analysis. For example, there was no evidence of students thinking aloud or talking to each other when choosing *ball* instead of *goal* or *their side* instead of *right behind them*. In methodological terms, TAP did not prove very useful in verifying the data yielded by other data-collection techniques.

In general, there was a tendency to rely heavily on dictionaries without paying attention to the visual and cultural contextual information. The most striking example of this feature, as it has been shown already, was the translation of *livelihoods*. On the other hand, the translation of *innovators* (a quite straightforward rendering from English to Greek) as *pioneers* suggests that these students were confident about their vocabulary and did not consult a dictionary. This was the case in all pairs of students, no matter if the students had the photo in front of them or not.

Occasionally, the students' translations were inspired by the image-based questionnaire. Some students looked for the photo's participants (question 1a) to determine what 'them' refers to (phrase 1). Other students related 'eye on the ball' (phrase 4) to the player's 'gaze' (question 2b). Three of them tried to relate 'our team' (phrase 10) to a concept presented by participants grouped together (question 1d), but they abandoned their efforts as soon as they decided that the translation was quite straightforward. Apart from such sporadic instances, the students did not refer to the questionnaire in the translation process.

Finally, there were very few instances of Internet use and these had to do with two elements. First, some students visited the *BAESystems* webpage, but there was no thinking aloud to examine if it contributed in any aspect to the translation process. Second, a couple of students looked up the phrase 'keep their eye on the ball' in the Google search engine and opened a text about baseball. However, again, there was no thinking aloud that would enable me to examine if it affected the translation process, even for the students who chose the word 'ball' in their translations. Once again, TAP, as a methodological tool, did not prove very useful in verifying the data yielded by other data-collection techniques

Table 4.5 shows the codification of students' translations, according to the scheme in Table 3.8. The upper case letters A/B/AB next to the coding indicate the cycle(s) in which the translations appeared. The discussion that follows involves an exemplification of this codification and records their mediation techniques by means of a series of figures and graphs that illustrate quantities of the translations' qualitative coding.

Table 4.5 Codification of students' translations

Phrase		Coding / Frequency-Cycle(s)	
1.	a.	WiVer-WiVis/7-A, 15-AB	
	b.	WiVer-WiVis/1-B	
	c.	WiVer-WiVis/1-B	
2.	a.	WiVer-AgVis/7-A, 10-AB	
	b.	WiVer-AgVis/7-AB	
3.	a.	WiVer-AgVis/15-AB	
	b.	WiVer-AgVis/4-AB	
	c.	WiVer-AgVis/5-B	
4.	a.	AgVer-AcVis/5-A, 6-B	d. AgVer-AcVis/2-B
	b.	AgVer-AcVis/5-B	e. AcVer-AcVis/1-B
	c.	AgVer-AcVis/4-B	f. AcVer-AcVis/1-B
5.	a.	WiVer-AgVis/5-A	
	b.	WiVer-AgVis/2-AB	
	c.	AcVer-AgVis/10-AB	
	d.	AcVer-AgVis/4-AB	
	e.	AcVer-AgVis/1-B	
	f.	WiVer-AgVis/1-A	
	g.	WiVer-AcVis/1-A	
6.	a.	WiVer-WiVis/5-A, 6-B	d. AcVer-AcVis/6-B
	b.	AcVer-AcVis/3-AB	e. AcVer-WiVis/2-AB
	c.	AcVer-AcVis/2-B	
7.	a.	WiVer-WiVis/14-AB	c. AcVer-WiVis/3-B
	b.	AcVer-WiVis/4-AB	d. AcVer-WiVis/3-AB
8.	a.	WiVer-AgVis/7-AB	c. AgVe-AgVis/2-B
	b.	AcVer-AcVis/3-B	d. WiVe-AgVis/12-AB
9.	a.	AcVer-WiVis/2-AB	d. WiVer-WiVis/5-B
	b.	AcVer-WiVis/14-AB	e. AcVer-WiVis/2-A
	c.	AcVer-WiVis/1-B	
10.	a.	WiVer-WiVis/24	
11.	a.	AcVer-AcVis/9-AB	d. AcVer-AcVis/2-B
	b.	AcVer-AcVis/8-AB	e. AcVer-AcVis/2-B
	c.	AcVer-AcVis/3-AB	

In order to explain how I arrived at the coded data in Table 4.5, I will refer to the phrase number 6 ‘a safe pair of hands’ (see Table 3.7) whose back-translations (6a-6e in Table 4.5) were coded as WiVer-WiVis (6a), AcVer-AcVis (6b) and AcVer-WiVis (6e). In 6a, the translations ‘safe’ and ‘hands’ aligns with the reading of the ST’s verbal elements ‘safe’ and ‘hands’ [WiVer], and with the visual *hands* [WiVis] in the sense that under the mitt there is the baseball player’s hand. In 6b, the translation ‘safety’ reveals a reading that is alternative both to the verbal ‘safe’ [AcVer] and to the visual representation of *safety* depicted by the protective role of the mitt. In 6e, the translation ‘sure’ reveals a reading that is alternative to the verbal ‘safe’ [AcVis], while the translation ‘hands’ aligns with the visual *hands* [WiVis] in the sense that under the mitt there is the baseball player’s hand.

The codifications in Table 4.5 are shown in Figure 4.1 to illustrate their numerical proportion followed by their placement on the two verbo-visual axes in mediation (see Figure 3.3.). The different types of lines that connect the two axes provide a rough illustration of students’ mediation tendencies between the verbal and the visual elements.

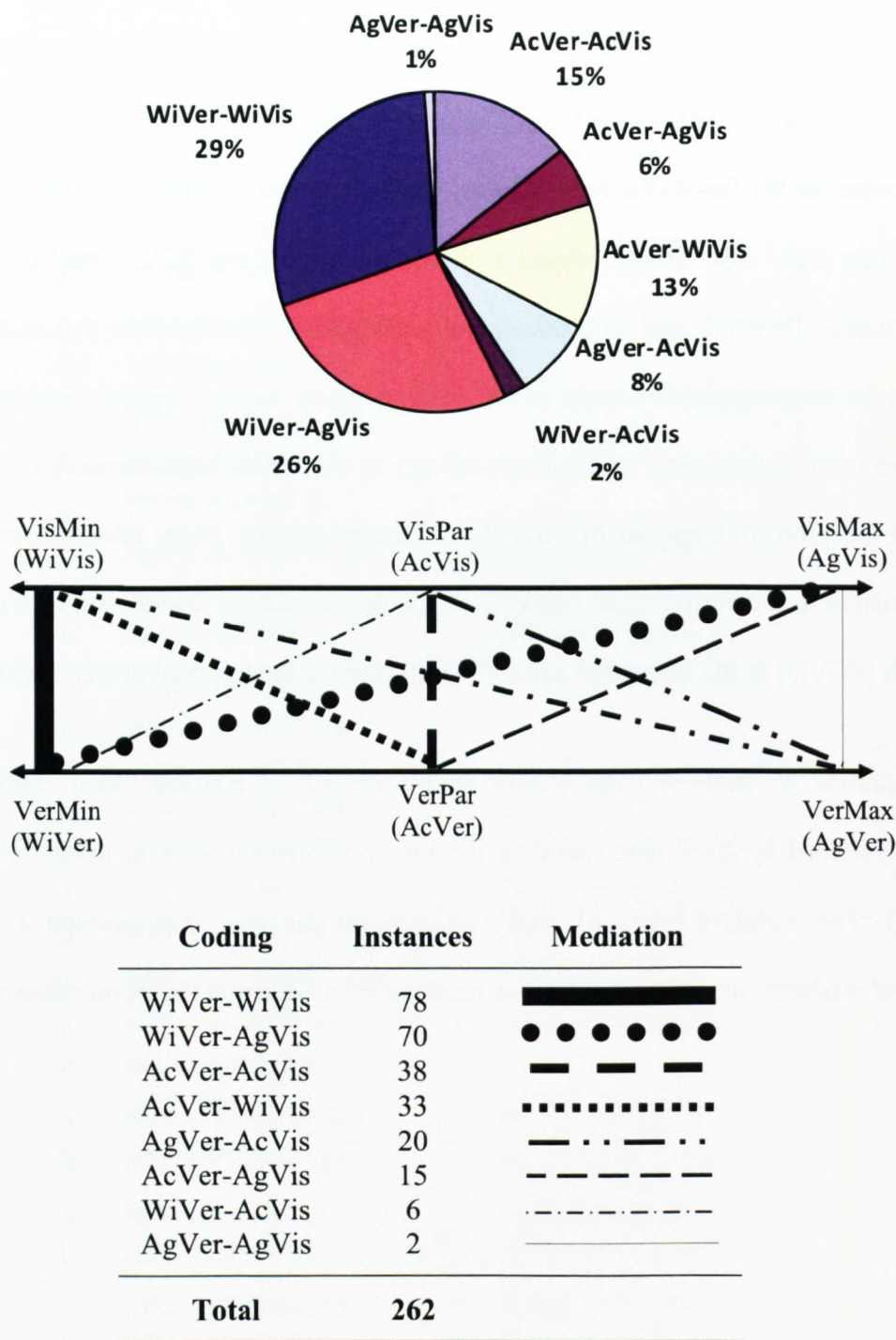


Figure 4.1 The distribution of students’ multimodal semiotics translations according to the coding scheme

Figure 4.1 illustrates the distribution of the students’ translations of the preselected words according to the multimodal coding scheme. The various types of lines on the two axes are

graphical representations of students’ mediations while sliding along the verbal and the visual axes (see Figure 3.3). Almost one third of all cases reveal translations that align with a reading of the ST’s verbal elements and an interpretation of the ST’s visual elements. In one quarter of all cases, the translations on one hand align with a reading of the ST’s verbal elements and on the other hand question and contest an interpretation of the ST’s visual elements. In other words, more than half of the translations show a tendency by the students to adopt minimal mediation techniques. As concerns the rest of the translations, they show a variation of a number of readings of the visual and verbal elements of the ST across the entire minimal-maximal spectrum. Yet, there is a tendency to revolve around the minimal point. In the figures following, I present more mediation tendencies.

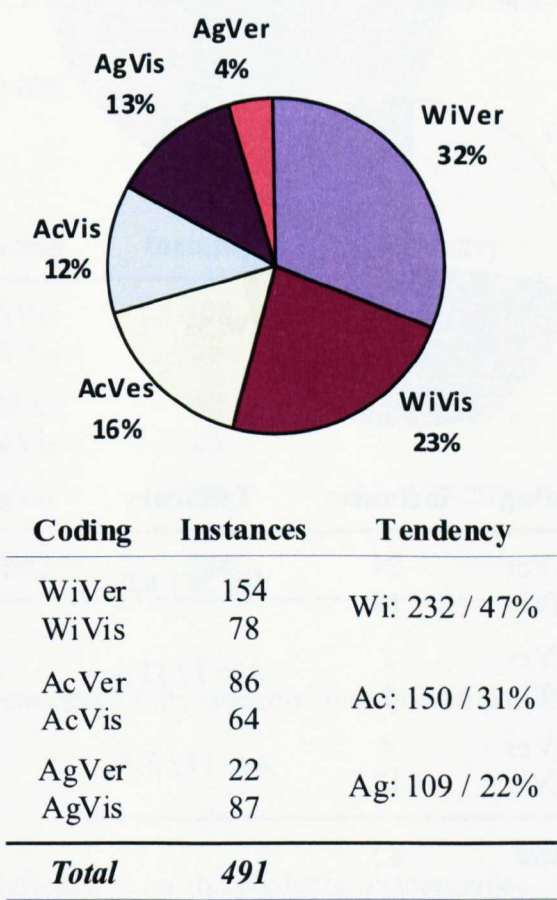


Figure 4.2 The overall tendency of students’ multimodal semiotics translations

Figure 4.2 presents the students' translations according to the coding scheme for MST. The graph organizes the translations according to the Wi-Ac-Ag tendency for both verbal and visual elements. There is a strong tendency for students (almost half of them) to avoid translations that would resist the readings of the data-text's semiotic elements.

If we examine the translations in cycles A and B separately, we can identify some changes. However, it should be noted that the effect of each separate stage or pair of students on the overall mediation tendency for each cycle will not be examined. This is because the focus in my research is the examination of the educational value of the overall effect of the multi-staged orders (see Tables 3.5 and 3.6). A more fine grained analysis of the stages that have been added to the traditional 'three step process' (see section 3.2.3) would require a research on its own.

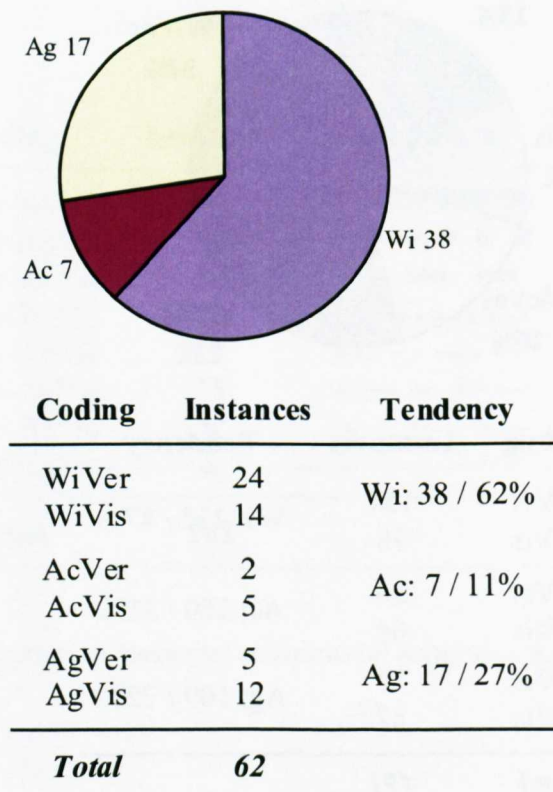


Figure 4.3 The tendency of the students' multimodal semiotics translations appearing only in cycle A

As it is shown in Figure 4.3, in cycle A the students’ translations reveal a tendency towards minimal mediation techniques. It is interesting, however, that there are twice as many maximal mediation techniques as partial ones. Although maximal mediations are by far outnumbered by minimal ones, the students, in general, were inclined to slid on the verbal and visual axes in diametrically opposite directions, which shows an attempt for deliberate interventions rather than for more neutral choices.

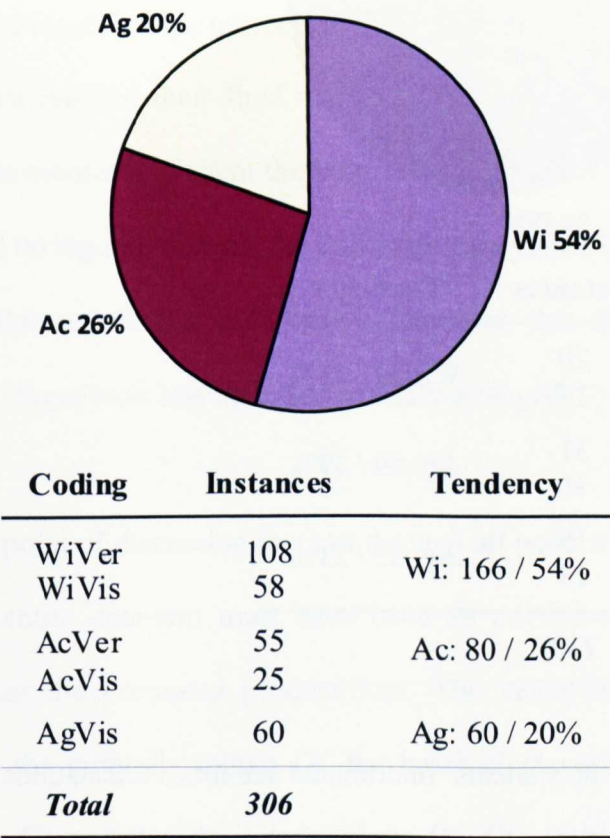


Figure 4.4 The tendency of the students’ multimodal semiotics translations appearing in both cycles A & B

The result of my reflexivity on the students’ performance in cycle A – which led to its modification, cycle B – as shown in Figure 4.4, brought about a slight turn away from

minimal mediation techniques. Some translations appear in both cycles, making it difficult to tell whether these translations were influenced by the modified cycle B. Therefore, I will examine the instances that appeared only in cycle B.

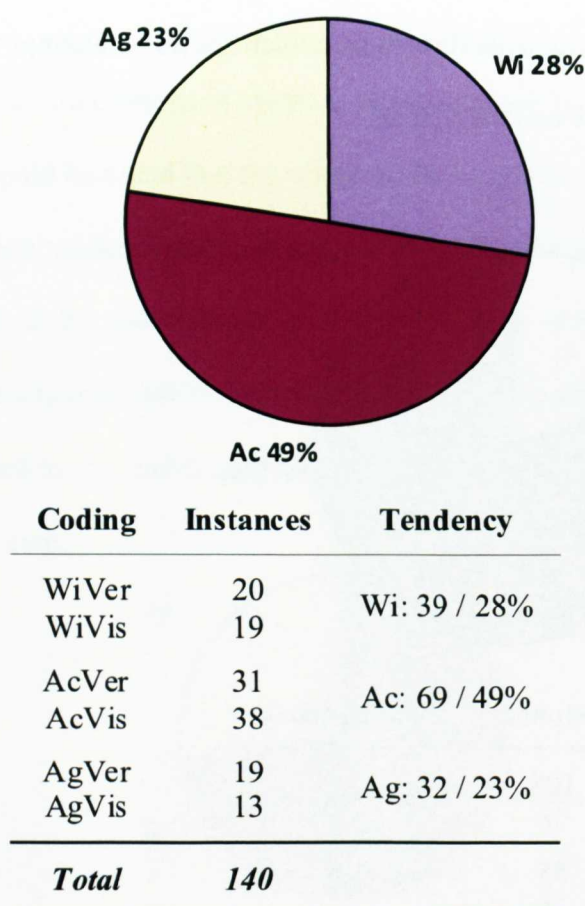


Figure 4.5 The tendency of the students' multimodal semiotics translations appearing only in cycle B

Figure 4.5 identifies a relationship between cycle B and the tendency to move away from minimal mediation techniques. At the same time, maximal mediation seems to be a technique adopted by about a quarter of the students, a number quite similar to that in Figures 4.3 and 4.4. Some of the alternative readings made by the students in cycle B have

to do more with grammatical changes – e.g. changing the gerund phrase *safeguarding them* to the adverbial/propositional phrase *when/if we safeguard them* – or the lexical change of *innovators* to *pioneers*.

4.1.7 Photo elicitation (Stage d4)

Photo elicitation proved to be a turning-point in the 5SP and resulted in cycle B where all the pairs of students went through stage d4. Out of the sixteen students who went through stage d4, seven identified the correct photo C, three photo A, four photo B, and two photo D. All students reached their final decision after thinking aloud and brainstorming, but there were also moments of silent thinking. Bearing in mind the students' engagement with this stage, and taking into account the important data yielded, I decided to extend this stage beyond the allocated time in both cycles. However, this did not prolong the entire 5SP because other stages took less time than initially arranged.

The common point of discussion that ran through all pairs was the idea of security and the fact that the entire data-text must have been an advertisement, though they could not determine what the promoted product was. The visual elements that were related to security were the umbrella (photo C), the baseball player's protective clothing and the aircraft (photo C), and the life jackets (photo D). The students who chose photo C based their decision also on the verbal element *pilots* and the existence of an aircraft. On the other hand, some students were guided to photo B because they related helicopter (a flying machine) to *flight* and the *sky*. Other students related the verbal elements *democracy* and *future generations* to the baby in photo D. An interesting point was the ascertainment by five students that no matter which photo accompanied the text, they would still have

something to say about it in relation to the verbal element of the data-text. This fact points to the difficulty of anchoring verbal elements to a specific visual element. Another interesting fact was that out of the nine students who identified photos A, B, or D, seven had rejected photo C from the very beginning. Therefore, these seven students, upon having access to the full data-text, might have started verbo-visual relations in a way quite different to that of the rest of the students.

4.1.8 Revise the translations (Stage d5)

The students completed this stage in less than ten minutes. Half of them said that there was no need for revisions without justifying their argument. The other half made limited revisions which had to do with minor lexical or grammatical modifications, and did not point to changes in their initial choices as a result of the preceding stages. During this stage, the students remained silent and as such there was not any TAP. Also, according to video observation, there was no interaction between the members of the pairs. The major methodological problem was the limited amount of time students had at their disposal.

4.1.9 Review the main session tasks (Stage e)

All students stated that the image-based questionnaire was generally understood but that there were some difficulties. Some students pointed to their inability to identify specific items (e.g. *vectors*). Others said that it requires knowledge of specific photographic terminology. Some claimed that although they understood the questions, they could not relate them to visual elements. One student even suggested having students from a university photography department as participants in order to give more accurate answers.

All students acknowledged that they chose the particular words (see Table 4.2) as problematic from a lexical, grammatical or syntactic point of view. When I asked them if they looked at potential interactions between the verbal elements they were looking for and non-verbal elements, only three students answered affirmatively. However, they did not explain the nature of this interaction. The students selected the words because they did not know their meaning, or they could not look up a proper translation in a bilingual dictionary, or they thought them to be difficult idiomatic phrases.

The students who translated the preselected words before seeing the photograph said that they may have translated them differently if they had had access to the photograph. Nevertheless, these students and the students who saw the photograph afterwards translated the words in quite a similar way. According to the students, the number and variety of translation resources were more than adequate. As far as the revision of the translations is concerned, the students made no comments whatsoever on this stage. The methodological implication here is the lack of data from part of the translation process.

The students enjoyed photo elicitation as a learning activity because it reminded them of the familiar multiple-choice exercise ‘find the correct answer A, B, C, or D’. They said that although they translated the words without looking closely at the photo, they took under consideration the discussion at that stage. However, there is no TAP-based evidence to substantiate the students’ claim that photo elicitation inspired them to translate the preselected words. Again, the methodological implication here is the lack of data from part of the translation process.

The use of *Actual Spy* showed that the students made limited use of electronic resources. The ethical issue of monitoring other people's computer activity was partly solved by the fact that the program was set up only on my computer. In addition, the related activity was intended to last for a limited amount of time, in a specific educational research context, and according to the guidelines for Open University students on the use of personal data for research purposes.

According to its report, there were some instances of looking up a word in electronic dictionaries (*supersonic, patrol, keep their eye on the ball, innovator*) and limited Internet activity. Seven students visited the BAE Systems website simply because they were prompted by the URL printed on the data-text and not as a specific step in the translation procedure. Five students looked up the phrase *keep their eye on the ball* in the Google search engine and found it in texts that were about baseball. When I asked them if they related this finding to the baseball player in the photo, two students replied that they tried to find a Greek equivalent phrase from sport discourse. However, their claim cannot be verified by the video recording or the TAPs because during the translation stages these students did not have a related discussion.

4.1.10 MST approach to translating the data-text (Stage f)

The discussion with the students was centred around the words they had to translate and their relation to certain visual elements (see Table 3.7).

In phrase (a), I asked the students what 'them' refers to. Only those in cycle B related it to the triad 'baseball player–aircraft–the pilot of the aircraft (if we accept the hypothesis that

he is inside the cockpit)’. Also, although some students thought of the invisible pilot as a participant (answer 1a in Appendix F), none thought to mention the pilot in answer 3b in Appendix F.

In phrase (b), I drew the students’ attention to the fact that the aircraft is not ‘supersonic’ (an A-10’s maximum speed is about 706 km/h). This generated a number of instant responses. The students said that the writer lied to the readers; it meant nothing to them; the supersonic could be related to the aircraft if it is visualized in motion; or that this is simply a conflict between the verbal and visual elements. Two students (from both cycles) characterised the photo as an unsuccessful choice for the purposes of the advertisement, in terms of the fact that aircraft was not supersonic. When I asked the students if it crossed their mind to ask me for information about the aircraft, two of them said yes, although they did not do so. For some of them it was just another aircraft, while for others fighting aircrafts were by default supersonic. One male student said that he knew the type of aircraft from a flight simulation video game, but he thought it was irrelevant information. Again, this claim cannot be verified by the video recording or TAP and could simply be a retrospective verbalisation.

In phrase (c), I asked the students to identify potential conflicts between the phrase ‘when pilots are up there patrolling the skies’ and the visual elements. All the students answered that there was no visual representation of aircrafts patrolling the sky, while some of them said that they did not even believe there was a pilot in the photo. I then asked them if the photo, as a result of this phrase, compromises the validity of the whole data-text. From this point of view, most students answered that the picture was irrelevant to the data-text. Three

students claimed that the phrase could be related to the concept of the military action 'patrolling' rather than the photo itself. Then I asked them to consider the translation implications if we take the visual element as the 'before/given' state (on the ground) and the verbal element as the 'after/new' state (patrolling). Five students answered that since the phrase seems to be a quite straightforward translation it may have to do with the overall strategy of the translator, but they did not elaborate on this. Two students noticed that according to question 3a, the information roles for this visual/verbal pair should be seen in an arrangement top-ideal/bottom-real. In this case, these two students said, the visual information should be valued for its emotive or imaginary information while the verbal information carries the informative value.

In phrase (d), I asked the students to identify a loss in their translations. Some who had not included the word 'ball' in the Greek phrase insisted that there was not any loss because it is simply a phrase that has to be translated with another equivalent phrase. The two students who had translated the word 'ball' literally acknowledged that they were affected by the image-based questionnaire in their attempt to find a translation as faithful to the visual elements of the photo as possible.

In phrase (e), I asked the students to find the 'defence systems' in the photo that phrase e refers to. These were attributed to the baseball player's equipment (eight students), the barbed wire (two students), the aircraft's systems (five students) and BAESystems' products (nine students). I then pointed to the baseball player's red face mask, as a defence system, and asked them if there is any possible reason that it is red. Some students said that it just happened, others took it as the regular colour of the helmet, while two stated that

there must be a sort of relation with the logo. When I asked them to verify their claims by using a reference, most students used the Internet to look for information about baseball helmets. As soon as they realized that there is not a standard colour for the mask, I asked them why the red one was chosen. Three students associated red with the bloodshed in wartime, eighteen said that the producer of the advertisement wanted to attract the viewer's attention (in contrast to the photo's greyness), one related it to the USA's flag (because baseball is popular to Americans) and two said that there must be a connection to the company's logo. Once the students' attention was drawn to the potential reading path 'logo > red face mask', some of them related the face mask to BAESystems' products, and, in consequence, the baseball player's face *behind* the helmet's face mask. This allusion led them to realize that the word 'behind', literally translated in Greek, would be an important verbal element in the TT. Most students considered this analysis quite extreme for translation purposes, and even unnecessary. The fact that some translators will disagree with the assumptions made here may have an impact on the validity of the research. However, this validity should be considered in the context of my reflexive approach and the multiple roles of the researcher, rather than in terms of the choices made by a translator.

In phrase (f), the students who had omitted the word 'hands' from their translations, did it on purpose to avoid an expression that would 'betray' their attempt to translate literally. For them, it was important to convey the sense of security. When I asked them to produce a translation that would include the word 'hands', they had difficulty finding a proper Greek phrase, though there is a very common one, *σε σίγουρα χέρια* [back-translation: in

sure hands]. However, they seemed to be uncomfortable with this solution, probably because it would require a translation shift of the whole paragraph.

In phrase (g), I asked the students to produce a translation that would attract a middle-aged readership, bearing in mind the (apparently young) age of the baseball player. There were some attempts at freer translations, such as ‘next generations’ or ‘generations that will follow’, though they were not too confident with them. Then I suggested that if the player is a child, the paraphrase ‘of our children’ might have had a stronger emotional impact on audiences such as parents and the elderly (with children and grandchildren). While some students seemed to be ready to discuss this choice as an alternative, others challenged the translator’s ‘license’ to produce a TT that would include ‘re-written’ sections of the ST. This challenge was also based on the claim that the translation of ‘future generations’ was too straightforward to look for other alternative choices.

In phrase (h), I asked them to split the photo into two realities, by means of the participants’ information roles and their relation through connective visual vectors. The students tried to combine narrative and conceptual readings of the photograph, such as the fact that both situations, military life (e.g. flying) and sporting activities (engaged in either professionally or as a pastime), take place on a daily basis. They also suggested that the eyeline created by the aircraft/pilot and the player forms a kind of connecting vector, however without going into further details. Also, some students could not understand how military life and baseball could be related. I then asked them to try to recall any war film they had seen. Some of them remembered films where American soldiers played sports in their camps while others had a similar recollection from TV news. For some students,

relating sports to military life could only have meaning in an American cultural context. Taking into account the previous discussion, the students agreed to render 'livelihood' as *everyday life*, but they would have been very reluctant to adopt it in a university translation exam/project or in real-life professional work.

With regard to phrases (i) and (j), the discussion then revolved around the need to realize that although their translation seems unproblematic and straightforward, they could become a useful source of contextual information. The realization that 'training and education' applies to both the pilot (as part of his preparation for war) and the player (as part of his preparation for the game) might help the translator identify the two realities in phrase h. Similarly, the realization that 'our team' applies to both the armed forces and the social (sports) group might help the translator identify the participants of the data-text as a whole (as it will be shown in phrase k). In this particular case, the students found it extremely difficult to follow my argument and I thus did not get many responses.

Phrase (k) was examined in relation to our discussion about phrase (e), and in particular the implications of translating the word 'behind'. Ten students immediately pointed to the shadow behind the player. Some of them said that they had caught a glimpse of the shadow while answering the image-based questionnaire, but neither video observation nor the TAPs verified their claim. When I asked them to describe the shadow, some described it as a bird, while others went into more detail, like pointing to a beak (possibly of a predator). Following that, I asked them to narrow down their search by relating the shadow to the advertisement's cultural references. Twelve students said that baseball is an American game but they could not go any deeper. I thus asked them to visualize the USA's official

symbol of a predator. Since most of them could not properly visualize such a thing – some students had a recollection but they were not sure – I urged them to look for information on the Internet by using keywords such as eagle, USA, and official symbol. As soon as they saw that the USA's official stamp depicts an eagle, they realized that the advertisement may have subtle cultural nuances of the USA's administration. Some of the students wanted to find out if one of the readings of the data-text is made by the vector between the shadow (formed by the wire face mask) and the logo through the latter's red colour. If this was the intention, these students went on, the 'shadow-bird' is a symbolic representation of (military) flight, and as a result, of the phrase the 'pilots are up there patrolling the skies'. However, they were sceptical about my suggestion that the shadow was originally formed by the sun falling on the wire mask. For a couple of students, this analysis could be related to the sense of 'freedom' experienced by the pilots in the 'skies', and to the baseball player who is playing the sport in a country (see USA) that enjoys 'democracy'. For other students, this analysis seemed to be problematic because while the shadow (representing BAESystems) is behind one participant (the player), the phrase is referring to 'them', that is, more than one participant.

Eventually, nine students suggested a reading of the advertisement which says that the armed forces, the official US administration and the American people are brought together, united against a common enemy. When I asked them to assess the value of this discussion for the translator I got no answer. Then I asked them to consider if the advertisement is human-centred or about technology. The students who initially approached the advertisement as having a specialized, technical focus said that their perspective had

changed. Some students referred to this humanizing aspect of the advertisement to justify the translation of ‘future generations’ with *our children*.

Finally, I set up a working scenario: The editor of a Greek military magazine intends to translate this advertisement into Greek, but s/he wants to use a different photograph, more familiar to the Greek readership, at the same time preserving the concept of the original advertisement. The students, as the translators of the advertisement, were asked to help the editor choose an appropriate photograph. The purpose was to exclude signifiers from the photograph and replace them with others. This was a test of redundancy: to identify what meaning is lost (if any) by omitting a sign. While that one sign may not be completely superfluous, its contribution to the overall meaning of the TT might be relatively weak. The students had to find how the weaknesses or strengths of this contribution could be regulated more precisely by placing alternate signs in the Greek context. This would enable them, as translators, to assist the Greek editor to make a judgement on the distinctiveness of the particular signifier chosen and of its value to the meaning. In Mossop’s (2007) terms, the students would have to adopt the ‘fourth voice’ (a style dictated by the editor or person commissioning the translation) who is neither the ST writer, nor the translator, nor the TT reader.

At the beginning, the students did not feel comfortable with the idea of suggesting a photograph. Through an intensive brainstorming about the differences and similarities between military life and sports in the USA and Greece, students gradually started to suggest several visual elements. In order to keep the verbo-visual reference between the phrase ‘safe hands’ and the visual *mitt*, they would choose a goalkeeper. In particular, one

student suggested Nikopolidis from the Greek national team in the 2004 European Football Championship, better known as Euro 2004. Another student visualized the barbed wire as the goal's net in an attempt to provide an example of verbo-visual reference between the original photo and the proposed one. In addition, we discussed the potential losses from this choice, such as the lack of certain protective equipment (helmet, wire face mask, chest protector) and the absence of visual cohesion created by the reading path formed by the logo > wire > face mask > shadow.

4.1.11 Post-session questionnaire (Stage g)

Eight students required additional time to complete the post-session questionnaire. Since it was the last stage of the 5SP, I decided to give them ten more minutes. Although the students were reminded that they had the chance to briefly expand on all their answers, none of them did it. Table 4.6 presents the students' assessment of the 5SP. The letters a-h refer to the statements and the code numbers 1-5 to the rate of agreement or disagreement to these statements (see Appendix B).

Table 4.6 Students' assessment of the five step process

	Code				
	1	2	3	4	5
Statement	Number of Students				
a)	16	6	2	-	-
b)	5	4	12	2	1
c)	8	6	5	3	2
d)	4	7	10	3	-
e)	19	3	2	-	-
f)	16	6	2	-	-
g)	2	4	15	2	1
h)	20	4	-	-	-

As far as the data-text is concerned, the verbal element was easily understood by all students; in other words, the students who do not belong to the English department had no problem in understanding its meaning. Half of the students considered the photograph as playing a minor role in the reading of the verbal element. Less than half of the students stated that they re-read the data-text while taking into account the interaction between the verbal and non-verbal elements. Almost half of the students suggested that the main translation tasks affected their translation techniques, but they could not specify the nature of this impact. Most students acknowledged, however, that both retrospective interviews were necessary and helpful for reconsidering their initial translation choices. The presence of a video camera at the research site passed unnoticed to the point where the students were unaware of being recorded. It is clear that most students had a problem assessing whether the production of TAPs had an impact on their performance.

While the students made no written comment on any of the questions, some of them responded to my prompt, upon completing the questionnaire, to discuss their answers. These acknowledged the significance of the image analysis, but they still had a problem relating it to the process of translating. For that reason, they considered the retrospective interview absolutely necessary. Moreover, students believed that if the stage 'MST approach to translating the data-text', in other words, the feedback, had taken place before they translated the words, they would have translated them differently. The implication for the research is that the different orders in which the pairs of students went through the 5SP did have an impact on students' approach to the translation of the data-text. Finally, all the students would be eager to repeat the 5SP, but with a data-text from a different subject area that would be closer to their own reading interests.

4.1.12 Informal discussion (Stage h)

There were three cases where the informal and unstructured conversation held at the very end of the 5SP was interesting and relevant to my research. In these cases, as soon as I went home I immediately started to take notes of the students' comments, relying on my memory. In the first case, the (female) members of one pair argued about their role as translators of the relevant data-text. While one stated that she could not deny her female nature (especially in relation to the military subject of the data-text), the other insisted that she had to behave in a strictly professional manner no matter her gender identity or the data-text's subject. This debate went on by means of arguments and counter-arguments, without resolving the issue, at least till we separated. In the other two cases, the students had second thoughts in relation to whether, in real life, professional translators would be in fact willing to be engaged in such a detailed analysis of the visual elements of a multimodal text. Moreover, they doubted if it is really worth it to spend so much time on analysing visual elements.

4.2 Data analysis and discussion

The discussion of the findings will follow the structure of the 5SP. In particular, for each of the five steps I will explain in what way the analysis of the empirical findings provides answers to the research questions.

4.2.1 Introductory meetings (Step 1)

The value of these meetings should be seen in relation to the pre-session phase where the students already had a clear view of the 5SP and my research as a whole. Bearing in mind that each meeting lasted for more than three hours, it was important to start the 5SP

without any further delay. Although this step is not related to a particular research question, it engaged the students in a research and training environment quite different from their university practices. In addition, it required a great deal of reflexivity, so as to provide only the necessary information without revealing details that would predispose the students. For example, I did not reveal the subject of the data-text or the nature of the retrospective interview. A disadvantage of this step is the fact that it is time-consuming. Also, this may have an effect on the validity of the findings; for instance, one could argue that in this research, the (four) students who did not have these introductory meetings form a different set of participants, with a different entrance point. However, this was a small sample, compared to the whole population, and it could be said that this did not compromise the research. This argument is further enhanced by their overall attitude during the 5SP, which was not different from that of the other students. Nevertheless, since there was no control group that did not go through this step in order for its practices to be assessed, the effect of the introductory meetings on the students' performance is not evidence-based.

4.2.2 Pre-session phase (Step 2)

By the time the students were given the instructions, most of them had already been introduced to the 5SP. Nevertheless, the necessity of stage b became obvious with the students who did not manage to have the introductory meetings. In these cases, I was obliged to spend some time giving an overview of the research. The questionnaire (see Appendix and section 3.1.3) was not set up to pick up subtle differences between the students. Given the time restrictions of the 5SP, there was no time for a more fine-grained analysis so as to match the students against more criteria, such as academic success.

4.2.3 Main session tasks (Step 3)

The tasks in Step 3 yielded useful data, with the most interesting information obtained from the image-based questionnaire and the photo elicitation. In section 4.1.10, I present my own reading of the data-text and the proposed translation.

The image-based questionnaire (stage d1) was in some respects useful and in others problematic. First of all, it gave students the opportunity to take a closer and more systematic look at the various visual elements. The TAPs conducted in pairs showed that the discussions around the students' answers to the questionnaire did not involve any translation concern. This was in part a positive practice because students got used to approaching the image as an 'autonomous element' (Barthes, 1961a; Forceville, 1999), at least for the purposes of analysing multimodal texts. This suggests that one of the multiple features of MST is the need for pure non-verbal semiotic analysis. Also, it could be said that students were not engaged with the semiotic analysis because of the novelty of the procedure.

On the other hand, the image-based questionnaire was also problematic. Its most difficult aspect was the existence of some technical terms (e.g. vector, perspective, visual angle, validity of the message), which were difficult to understand despite the fact that a 'tip' was provided below each question to clarify them. This difficulty is an indication that MST is dependent on a specific visual skill that requires training. On the other hand, it might simply indicate the fact that these terms were not transposed into more accessible ones for this particular audience. Another problem was that some students had difficulty answering the questionnaire in the time given. The video recordings suggest that these students ran

out of time probably because they were stuck on some questions and not because they were unable to answer the rest of them. Another potential problem is that the design of the questionnaire did not take into account the data-text's particular features (e.g. visual and verbal elements, register, genre). It was rather a 'ready-made' questionnaire based on the literature dealing with the three metafunctions as a whole. It is likely that some text types may require another set of different, though related, questions (see Rose, 2007) that are more appropriate for the analysis of their visual elements. The identification of these questions requires MST teachers to be very careful when designing similar questionnaires.

Stage d2 did not yield much data. Almost half of the students found no words, while the rest of them found only a couple of the preselected ones. Although the main purpose of this stage was to stimulate students to identify potential translation problems before they began translating the data-text, it proved to be a non-engaging task. This could be attributed to the fact that the students preferred micro-strategies in translating (or 'bottom-up' techniques) to macro-strategies (or 'top-down' techniques). That is, they started to translate each word/sentence one after another without taking into account other factors, such as wider socio-cultural and socio-textual practices. If students had realized the importance of the conflict between the immobile (and subsonic) aircraft and the phrase 'patrolling the skies' or the 'supersonic world of flight', these words might have appeared in their lists. Therefore, it could be argued that adopting a multimodal perspective is a good practice to identify potential translation problems even in the preliminary reading and understanding phase. This in turn might dictate a particular translation strategy.

In Stage d3, the translation of the preselected words was meant to yield data that would reveal the students' answer to what is involved in reading images while translating multimodal texts. Apart from a few examples where students in cycle B provided such an answer, most of the analysis will be informed by my own examples because students generated very little data and because of my interventionist and reflexive approach to the research. The very fact that most students just took a quick look at the photograph and then put it aside when they began their translation is a strong indication that it is almost impossible to tell what was involved when students read the photograph while translating. This is further enhanced by the fact that both TAP and video-recording analysis did not reveal any activity that could be attributed to image-oriented translation. Although this is also a cognitive procedure that could have taken place in the students 'black box', and is thus not amenable to analysis, the retrospective interviews verified that students did not take into account the non-verbal elements. Next, I will discuss a few examples that demonstrate the students' efforts to consult non-verbal elements while translating. The actual words of the data-text will appear underlined and I have used double quotations for some words for illustrative purposes.

A (female) pair related ball to a man's genitals, which refers to the phrase "he has got balls" as a masculine symbol of tough courage. However, as soon as they realized that this was not a gender-biased allusion, they changed their mind. Despite the pair's misleading line of thinking, this is an instance of creative thinking where, by visualizing a mental picture (a man's genitals) fitting the word ball, the pair accomplished a creative (albeit inaccurate) translation. This example corroborates Kussmaul's (2005) use of the 'frame and scene theory' in TS, where the visualisation process could lead to creative translations.

Additionally, it suggests that if students work in pairs they might negotiate different translation choices that could solve ST ambiguities and misunderstandings.

Although this was actually a tentative translation solution, it can be used as an example to show students' mediation techniques. Some pairs realized that ball cannot be translated literally because it is an idiomatic expression. The [back]translation 'target' or 'goal' is a reading that contests the ball as an item thrown towards the baseball player, and interprets the visual *ball* as the catcher's "goal", which is it to catch it. This example helps to test the assumption that the encouragement to visualize images (here, the baseball game) triggers creativity for translation purposes. Unfortunately, even though they were willing, the students did not have the time to elaborate on their thinking. There were two students in cycle B who were so influenced by the image-based questionnaire (and the photo elicitation) stage(s) that they translated ball literally to produce a multimodal-oriented translation. Specifically for the English-Greek pair of languages, this is an example of the dangers that lie in MST when the translator is eager to relate visual to non-visual material.

The translation of a safe pair of hands was handled in two different ways by the students. On the one hand, the students tried to relate hands with the catcher's "hand" (though we cannot tell if this was the writer's intention) and, on the other hand, there was a conscious and openly declared effort to convey the meaning of safety. The verbal elements are in an almost one-to-one relation with the visual elements of the catcher's hand and the mitt. In this case, the translation is not only incorporated in the picture, but even more, is (part of) the picture itself. The translations that include the word 'safety' are examples where linguistic translation interprets the image. In other words, it was important for the students

to highlight the meaning of safety (that is conveyed by the mitt) and not the visual elements themselves. Thus, though baseball is a sport unfamiliar to the Greek culture, the analysis of visual elements gave students the opportunity to discuss some translation strategies.

Moving on to the coding scheme, the codification of students' translations suggests that they were inclined to adopt minimal mediation techniques. These techniques are represented visually in Figure 4.1, where most of the mediation lines appear on the left side of the partial mediation points, towards the minimal end. In fact, only two lines (representing a minor number of translations) appear exclusively on the right side, towards the maximal end.

This tendency towards minimal mediation is further illustrated in Figure 4.3, where the vast majority of the translations (78%) reveal a reading that aligns with an interpretation of the ST visual element and a reading of the verbal element. However, this minimal tendency does not necessarily imply a less effective use of the MST approach. As it has been shown earlier (see the discussion about the ball), the most crucial thing is to identify the reading of the ST's visual and verbal elements that would best fit the translator's choice. The decision to put the translation of the (unseen) visual element *ball* on the VisMin axis was based on the assumption that the word ball refers to the catcher's goal and not to the *ball* as an actual object. On the other hand, if we had read ball as the sports item, then the coding would have been VisMax. This discussion demonstrates the potential difficulties in combining visual and verbal elements under the same coding scheme which requires further research.

As regards the differences between the translations produced in cycles A and B, it is interesting to compare Figures 4.3 and 4.5. It is clear that the MST tendencies have changed remarkably from cycle A to cycle B, with the students in cycle B demonstrating a decrease (-34%) in minimal mediation techniques and an increase (+38%) in partial mediation techniques. Given these steep changes, the relatively small decrease (-4%) in maximal mediation could not be regarded as a tendency, but rather as statistically irrelevant. Overall, the increase in the number of partial mediation techniques reveals a tendency in the students in cycle B – when compared with the students in cycle A – towards alternative readings of the data-text's semiotic elements.

From an MST point of view, if the word ball were to be translated literally, it would make the Greek phrase more visually-oriented, but would not fit this particular context. In a Greek sports magazine, for instance, the phrase *κολλημένος με την μπάλα* [back-translated: 'glued to' (i.e. obsessed with) the (foot)ball] might attract the attention of the reader who is familiar with a Greek TV football commercial slogan on sports betting. Also, the translation *safe hands* shows an attempt to relate the phrase to the overall feeling of security that is conveyed by both the fully-protected player and the aircraft. The feeling of security created by the photo was also mentioned in the students' answers in the image-based questionnaire (question d1). The identification of such cultural differences are important in contextualizing fully a multimodal text.

After this quantification of qualitative data, I will move on to demonstrate a representative MST approach in order to examine what is involved in reading images while translating multimodal texts. The items of the data-text (visual/verbal) to which the codification

scheme is applied are underlined and followed by the codification in the exponent position. The ST words appear in single quotation marks and their Greek translation in italics. Any back-translation into English is in square brackets. The words in double quotation marks are given special emphasis.

Phrase (a) relates to four participants: the baseball player^[WiVis-AgVer], the aircraft^[WiVis-AcVer], the pilot^[AcVis-WiVer] (if there is one inside the cockpit) and the eagle's shadow^[AcVis-AgVer].

While the Greek translation of 'them' *τους* is quite straightforward and unproblematic (and in fact the translator's single choice), its significance from the beginning is expected to inform the translator's subsequent choices. Aircraft and pilots form a unique bond, frequently thought of as being natural extensions of one another. This relationship is reminiscent of the dyadic horse/rider and car/driver, where people are entitled riders and drivers, respectively, not based upon their ability to ride and drive but upon their temporal and circumstantial position on the horse's back and in the car driver's seat.

In phrase (b), the aircraft (the subsonic A-10) is neither supersonic^[AgVis-WiVer] nor seen in flight^[AgVis-WiVer] mode. The layman will probably not be aware of this "supersonic conflict"; that is, the fact that the aircraft's maximum speed is 0.51 mach, and thus not supersonic. This contradiction could increase the photo's modality. If the photo has been taken spontaneously – the A-10 may just have happened to be there – it could be argued that the photographer did not stage the photo; in other words, the photograph is more plausible. Should the Greek translators aim to translate WiVis (and thus satisfy a visual-sensitive specialist/pilot readership), they could use a word that evokes a lot of noise, something like *στον ξέφρενο κόσμο* [in the frenzied world]. Although this is definitely not a

translation proper, even for the non-professional translator, it provides a good example of the kind of discussion that could take place in the translation classroom or even for contemplation by individual translators. Additionally, it illustrates the need for translators to know the audience of the ST and the intended audience in the TT.

To avoid the contradiction between the word ‘flight’ and the immobility of the depicted aircraft, the translators could use the neutral hyponym *των αεροσκαφών* [of aircraft] and achieve an additional cohesion with the A-10. The downgrading of ‘supersonic’ is an indication that the focus of the advertisement is not the aircraft, and by extension technology, but the player. In other words, it is a human-centred advertisement. In cases like this, the subject specialist could provide feedback on students’ translations by monitoring the discussion. Although the suggested translations above have moved beyond the most maximal and extreme translation mediations, to the point of being considered an idle fancy, they could form a good pedagogical basis for MST training.

In phrase (c), the aircraft^[AgVis-WiVer] (and as a consequence the pilot) is neither patrolling, nor is he or she in the skies^[AgVis-AcVer]. Again, the translation in Greek is quite straightforward. Therefore, it seems unavoidable for the TT to have the same conflict as in phrase (b), reinforcing the argument about a human-centred advertisement. By placing the pilot (and the aircraft) on the ground, the focus is on the pilot and not on the aircraft (A-10).

In phrase (d), it is the player^[WiVis-AgVer] that keeps [his/her] eye^[WiVis-WiVer] on the ball^[AcVis-WiVer], ready to catch it when it is thrown from the viewer’s point of view. In military terms,

the pilot^[WiVis-AcVer] is assisted (by BAESystems) so that he will be able to see^[AcVis-WiVer] a military target^[AgVis-AgVer]. This sports phrase is interpreted metaphorically for the pilot in verbal terms, and literally for the player in visual terms. For the English speaking audience, the phrase is easily attributed to both participants, on the assumption that the audience is culturally informed that this is a baseball player waiting to catch a ball. The translation, at least for a Greek audience in the context set by the verbal element, would normally not include the words ‘ball’ and ‘eye’. Therefore, this loss for the Greek reader will have to be compensated somewhere else in the TT. In military terms, the pilots, by means of BAESystems, are able to maintain their focus and be in readiness to confront the enemy.

In phrase (e), the eagle’s shadow^[AcVis-AgVer], possibly formed by the sun as it falls on the helmet’s wire face mask, could be BAESystems^[AcVis-WiVer]. This interpretation is based on reading the visual cohesion between the red wire mask and the logo, projected as it is next to, and behind^[WiVis-WiVer], the player. A defensive system (the face mask) was transformed by BAESystems (the innovators) into a predator^[AcVis-AcVer]. Since the word ‘behind’ cannot be translated literally in Greek, or even with a (near) synonym, for reasons of registry, the cohesion between the visual vector “BAESystems logo > red face mask > shadow” and the verbal element ‘the innovators behind’ is broken. From another perspective, we could consider the player, whose face is behind the wire face mask, as the innovator of these systems. In this case, the word ‘behind’ can be translated literally in Greek with the proposition *πίσω* and thus (possibly) lead the reader to associate the man behind the red face mask with the logo. In this case, the player is a member of the team (BAESystems) that produces the systems. However, this would require several syntactical and grammatical changes whose consequences are not the purpose of this research; e.g. the

sentence would have to be split into two, though closely related, sentences. Since this discussion is quite interpretative and subjective, it should be considered in the context of the English-Greek pair of languages.

In phrase (f), the sense of safety^[WiVis-WiVer] is provided by the player's hands^[WiVis-WiVer] in the form of the mitt^[WiVis-AgVer], the helmet^[WiVis-AgVer] and the protective body gear^[WiVis-AgVer]. The use of a Greek translation that seems to cohere both with the ST's verbal elements 'safe' and 'hands', and the visual mitt is *βρίσκεται σε ασφαλή χέρια* [is in safe hands], but it requires a translation shift of the whole paragraph.

Phrase (g) could be said to refer to the player who seems to be young or even a child^[WiVis-AcVer]. While the literal translation *μελλοντικών γενεών* seems to fit here, the near synonym *των παιδιών μας*^[AcVis-AcVer] [of our children] might have had a stronger emotional impact on a middle-aged audience, like parents, or older people (with children and grand children). The catcher/child engages the viewer/pitcher to "play" with him by throwing the ball. It is common American socio-cultural practice for a child and a father to play baseball together by simply throwing a ball to each other while wearing a mitt, but without holding a bat (as in the real game). Since the catcher and the pitcher are in fact in the same team, this ball exchange could be interpreted as an effort to build stronger family bonds. This is additional evidence that the data-text is more human-centred. The pedagogical implication here is the background reading required by the students prior to start translating texts with cultural connotations.

Word (h) could refer to the two sides of the photograph: (left) everyday life in the military^[WiVis-AcVer] and (right) the everyday life of civilians/sportspeople^[WiVis-AcVer]. The choices *πόρος ζωής* [means of living] or *τα προς το ζην** are not stylistically appropriate – especially the second choice, which comes from the *katharevousa* dialect, set at a midpoint between Ancient Greek and the Modern Greek of the time, and stressing both a more ancient vocabulary and a simplified form of the classical grammar. The translation *καθημερινότητα* [everyday life] is based on the photo's division into two realities. This is achieved through the information roles taken on by the participants, in two ways: firstly, in a left/right distinction through the visual vector of the eyeline formed by the aircraft/pilot and the player; and secondly, through common socio-cultural patterns where both situations, military life (e.g. flying) and sports activities (engaged in either professionally or as a pastime), take place on a daily basis.

In phrase (i), both the pilot and the player receive training and education^[AcVis-WiVer] for different purposes. While the translation seems unproblematic and straightforward, the realization that 'training and education' applies to both the pilot and the player might help the translator identify the two realities in word (h).

In phrase (j), there are two teams, in the sense of a group of people with a common purpose: the [baseball] team^[WiVis-AcVer] and the [military] team^[WiVis-AcVer]. As previously, while the translation seems unproblematic and straightforward, the realization that 'our team' applies both to the armed forces (implied by the aircraft/pilot) and a social (sports) group (implied by the baseball player) might help translators identify the two realities in word (h).

In phrase (k), the translations *δίπλα τους* [next to them] or *στο πλευρό τους* [by their side] are semantically (connoting a sense of support) and grammatically (as a prepositional phrase) successful. Moreover, in visual terms (see phrase (e)), the shadow-BAESystems is not directly behind the player. At the same time, while the shadow-BAESystems appears behind one person, BAESystems (from a verbal point of view) is behind more than one participant, the player-pilot and the aircraft. A pedagogical implication here is that students require a specialized knowledge (here photographic terminology) in order to make complicated analyses of visual material which requires an extensive training period.

The discussion of the students' findings and my own MST analysis of the translation of the preselected words were based on the coding *I* have chosen to apply. In other words, should another researcher had other readings of the ST's visual and verbal elements, the analysis and codification would have been different. This analysis informed the second retrospective interview 'MST approach to translating the data-text'.

4.2.4 Retrospective interviews (Step 4)

The first retrospective interview was conducted as it was planned in some respects. The students reflected on their own work around the session tasks and provided useful data. They described how the image-based questionnaire provided a solid basis for image analysis though some questions were sort of 'technical' and difficult to understand. The fact that most of the students looked for words that posed potential translation problems without relating them to the photo is another indication that, for these students, translation as a whole is a procedure that ignores possible interrelations with other co-existent visual elements.

The two software programs yielded very poor data for the simple reason that the students did not make much use of electronic resources. Nevertheless, both programs seem to suit MST training. *Keylogger* showed that some students made an attempt to use electronic resources, though unsuccessfully. Their ‘response’ to the advertisement’s call to visit its website points to the fact that the translation of multimodal texts may trigger a chain of tasks that translators may think of as irrelevant to their main translation work. If these students had had a closer look at the company’s logo on the website they would have realized that red is the standard colour, which eventually might have helped them to make the visual cohesion between the logo and the player’s wire face mask. *Hypercam* produced a video record of this activity on the computer screen, allowing me to verify the students’ claim that the texts they read on the Internet were about baseball. If I had relied solely on the video recordings or TAPs, these procedures would have remained hidden.

The second retrospective interview worked well as regards my intention to widen the discussion and to offer students a multimodal semiotics perspective. However, in order to know that their awareness levels have been really raised, we would need to put them to the test in a new task. Additionally, it failed to place the students in the position of the translator who is trying to solve queries with a subject expert of the data-text at hand.

The word-by-word approach provided anchoring points for the students to discuss verbo-visual relations. In phrase (b), the students produced a variety of responses to my information that the aircraft is not supersonic, which could be used by the translation trainer. The students’ response that the writer is lying to the reader was a good opportunity to discuss the validity of the photograph. Their claims that the aircraft meant nothing to them brought forward the issue of the autonomy of the image as an integral ‘visual text’

within a larger multimodal text. The argument that ‘supersonic’ could be related to the aircraft if we visualize it in motion led us back to the image-based questionnaire, where we discussed the conceptual structure of the photograph and the value of visualisation as a technique in producing creative translations.

The applicability of the image-based questionnaire in MST was also evident in the information roles of the participants in relation to phrase (c). Some students realized how a seemingly straightforward translation could become a starting point for top-down analysis. The two students in cycle B went even further and argued that the top-down arrangement of the data-text (the visual ‘aircraft’ and the verbal patrolling) could be seen as presenting ideal-real information. That is, the visualisation of a flying aircraft for the viewer vs. factual (verbal) information for the reader may add credit to the appropriateness of the image-based questionnaire for MST. However, a counter-argument to the students’ claim that translators should focus on the verbal element of this data-text if they are to convey factual information, could be that if the photo had appeared below the main verbal element this top-down arrangement would have been reversed. Therefore, the top-down arrangement as an indication of the participants’ information role is useful as long as the translator has taken into account the various reading paths of the multimodal text.

Phrase (d) pointed to the students’ perception of the concept of translation loss and equivalence. These students probably considered that as long as we find a TT phrase that is equivalent to the ST, the translation could not be qualified as a loss, especially when the TT has no direct equivalent, in this case, a phrase including the word ball. This approach to a translation problem points to a logocentric training. If the students’ visual literacy skills

were more honed they might have identified the absence of the word ball in the TT, from an MST perspective, as a verbo-visual loss (in this Greek TT). On the other hand, some students' eagerness to adopt a visual-oriented approach and to include the word ball in the (Greek) TT reveals the dangers of the MST approach. Therefore, translators should take care to find the right balance when mediating between verbal and non-verbal semiotic elements.

In the discussion of phrase (e), the students had an opportunity to consult me as the subject specialist and to ask me to define defence systems. No student considered the fact that defence could be discussed in three ways: in the context of the military, of baseball as a sport or of generic equipment. At this point, it should be noted that the students in the image-based questionnaire who had provided a longer list of items falling under the category 'defence systems' failed to repeat them at this stage, probably because they had forgotten them, or they did not expect this question, or they were worn out. This is an example of the value of employing the method of triangulation to ensure that data will be recorded throughout the research as accurately and faithfully as possible. The use of the Internet by all students as a source of encyclopaedic information suggests that the students had a certain level of multiple literacy skills. The problem was that they did not know how to process this information and for that reason I pointed them in a certain direction each time in order to keep the discussion moving; for instance, the distinctive colour of the catcher's helmet, and the shadow it forms next to him. Here, justice should be done to the students and I should say that they did not have much time at their disposal to answer because of the strict time-schedule of the 5SP.

The difficulty (and occasionally reluctance) in forming these connections between visual elements could be related to two factors. On one hand, it could be the students' inability to comprehend the concept of vectors in the image-based questionnaire, or on other hand, it could be my inability to put it across plainly as a teacher. However, despite these difficulties, as soon as the students were exposed to this chain of verbo-visual reactions some of them made various multimodal readings by relating the face mask to BAESystems. If I had not intervened to point this vector out to the students, the discussion would not have turned to the visual cohesion between the logo and the face mask. This discussion is an example of the importance of the researcher's interventionist role, and in consequence, of the translator trainer's role in the design of scaffolding techniques.

Phrase (f) became an opportunity to discuss the issue of foreignization vs. domestication in translation. The students who remained faithful to the verbal element of the phrase (nevertheless trying to convey its meanings and not the actual words) and tried to find a phrase that would not include the word hands (so as not to give the ST away) seem to have been guided by a domestication strategy. On the other hand, it could be said that my request that the students take into account the visual aspect of the phrase (even though the hand is covered by the mitt) and find a phrase that would include the word hands was guided by a foreignization strategy, in which case the translator becomes a traitor, or '*traduttore traditore*' (Jakobson, [1959]1996), to the ST. Unfortunately, due to time constraints, there was no time for further discussions with the students on the extent to which verbal-oriented translations may favour domestication strategies and visual-oriented translations foreignization strategies.

Phrases (g) and (h) were two cases where students had difficulty applying MST techniques. In particular, they challenged the assertion that the verbal element next generation could be rendered by a Greek phrase that was chosen as a result of reading a visual element, the young age of the player, even if this was a strategy to engage a particular type of audience (middle-aged parents). This reluctance points to the weakness of my interpretation in terms its wider validity and the difficulties for translation teachers in helping students to produce translations which are rendered by aspects of the visual elements in the ST. In other words, the manipulation of verbal and non-verbal elements by way of analogy to subtitling, at least according to Chuang's (2006) proposal, could become problematic for training purposes. Phrases (g) and (h) confirm the need for students to start developing a sense of wider socio-economic and socio-political issues, in other words background knowledge. The students could have used the Internet as a bibliographical source. Yet, although the students were skilled in surfing the Internet, they failed to use it for text analysis. Time constraints may have played a role, or they may perhaps just be used to doing quick superficial searches and would not have gone further even if they had had more time. In terms of the research methodology adopted, a number of print and electronic references at students' disposal could be a remedy to the time restriction imposed.

Phrases (i) and (j) are examples where an MST approach could enhance multimodal text understanding. Although the Greek translations are quite straightforward, their information value on the basis of a left/right distinction, along with the fact that the photograph became a visual stimulus, enabled students to place the data-text in its wider socio-cultural context.

Phrase (k) is an example which highlights the researcher's interventionist role requiring a high degree of reflexivity. The various levels of signification that were applied to the visual elements of the data-text, for example, the shadow behind the player as a reference to the USA (and in particular the eagle that appears on the governmental stamp), have been the researcher's subjective interpretations. Another researcher might have made different intertextual associations which could lead students to different interpretations. Nonetheless, no matter the researcher's subjectivities, the main point, at least in pedagogical terms, is to help students raise their translation awareness levels and widen their perspectives so as to take into account as many factors as possible and to pick out the most relevant ones. In a classroom-scale exercise without the time restrictions imposed by the 5SP, the translation teacher could point to several more possibilities, which would trigger a larger number of different responses. Then, a research-based protocol would verify that awareness levels are indeed already raised, and transfer students' observations on the visual semiotics to translation research. Moreover, this protocol would have to be universal and not simply relevant to the English-Greek pair of languages.

The final working scenario, where the students were asked to 'stage a photograph' (e.g. different participants and settings) for a particular editorial purpose, could be developed into a technique that would help students become skilled in multimodal text production (see section 3.3.1 about the 'commutation test'). For example, the students would be given a verbal-only text and two (or more) photographs that are related to each other and to the verbal-only text. The students would have to translate the text firstly accompanied by the first photograph and secondly accompanied by the second photograph. Finally, they would compare and comment on the strategies adopted for both versions. Alternatively, the

students could be divided in two groups where each would translate only one version and then exchange translations to make comments.

Although at the beginning the students felt uncomfortable with the task, they very soon got accustomed to it and even seemed to enjoy it. However, such a task requires a high degree of reflexivity and tolerance on behalf of the instructor. In this research, being an expert of the data-text's subject gave me an advantage in relation to the students. On the one hand, this enabled me to control the flow of the conversation, but on the other hand, there was the risk of developing a relationship of expert vs. lay reader with the former patronizing the latter. The best way to prevent patronization is to properly train the expert-teacher in how to teach in this dual mode. In this way, there would be three types of participants in the translation classroom: the teacher, the students, and the invited subject expert, each one with a specific educational role, in a cooperative learning environment.

4.2.5 Post-session phase (Step 5)

The post-session questionnaire yielded some very enlightening data, and in some respects verified the analysis and the discussion of the data. The students comprehended the content of the specialized data-text because it posed no particular reading difficulties, apart from a couple of semi-specialized words. For the majority of the students, the reading of the data-text did not involve potential interactions with its visual semiotic elements. However, they acknowledged that the retrospective interviews helped them to realize that there were such interactions, at least in the way they were presented by the researcher.

The students felt that they were not affected by the video recording, but their claim cannot be taken at face value. Although the video recordings showed the students engaging in friendly dialogues, it is difficult to assess the video's impact on their cognitive processes. In other words, there was no control group with which to compare translation performances in the absence of a video. The students' difficulty to assess the impact of TAPs on their performance is not surprising, bearing in mind that they were not trained to produce TAPs. The value of the image-based questionnaire was praised only because it was followed by the retrospective interviews that clarified some unclear points.

The fact that the students would be interested in repeating the 5SP (albeit with a different data-text) points to the success of the research, at least in terms of being a pleasing educational experience. Also, the students' request for a different type of data-text suggests that they wanted to assume responsibility for their own learning, similar to the way proposed by Kiraly (2001). On the whole, the response of the students who volunteered to be part of this research was overwhelmingly enthusiastic.

Finally, although it cannot be claimed that the informal discussions produced reliable evidence, they did provide the opportunity for the students to engage in interesting debates in some cases. At the very least, they helped the students to leave the research site with the least cognitive, emotional and physical overload possible. This unstructured task is circumstantial evidence that any educational activity is not solely confined within the classroom, but may also have a post-classroom impact.

Before moving on to an overall evaluation of my research, the next section provides the reader with answers to the research questions and supported by evidence collected from the 5SP.

4.3 Returning to the research questions

To sum up this chapter, the analysis and discussion of the findings have provided answers to the research questions in various ways. In this discussion, only student-generated data will be taken into account and not my application of the coding scheme. This is important because it ensures that the window of observation includes only what the students did in the 5SP to yield data. However, since the students' translations have been coded according to a coding scheme that is based on my own translation of the data-text, it should be considered that the students' work is also measured against my interpretations of the data-text. At the same time, I will discuss the contribution of my research to the theory and practice of translation education.

Research question 1: What is Greek undergraduates' perception of the role of visual literacy in translation?

The answer to this question was informed by the conceptual framework of visual literacy (in particular, multimodality), semiotics and translation (see Figure 2.1). Multimodal semiotics provided the perspective through which to examine the way the students described semiotic resources, what they said about and did with the visual means of communication, and if/how they focused on the latter. This examination also involved students' ability to interpret verbal and non-verbal semiotic elements for the purpose of

intentionally communicating the ST culture to the TT audience. The students' adoption of the role of visible/invisible translator was taken as an indicative factor of their (un)willingness to co-examine verbal and non-verbal elements. Another issue was the examination of students' ability to understand a particular model of visual grammar and apply it to the translation of a multimodal text. A key point of reference was students' perception of the image as an autonomous type of text. Related to the last point was students' ability to examine issues such as the development of the image or the materiality of the ST and how they might affect the target readership. ST verbal information modified, added in or removed from the TT was also an indication that the visual material might have been a translation factor for the students.

The students did not have a clear idea of the role of visual literacy in TS. One reason for this was probably the fact that the students' training in translation did not include several visual-related courses. The total number of translation courses taken by the students by far outnumbers the visual-related ones. In addition, the fact that most students had difficulty identifying which courses were visual-related makes their categorisation as visually (il)literate more problematic.

Another reason could be the tendency to ignore the image during the translation process, which suggests that the visual element had no (significant) role to play. While the students were looking for words with potential translation difficulties, there was no indication that they related them to a visual element. Most students just took a quick look at the photograph and then put it aside when they began their translation. This is a strong indication that it is almost impossible to tell what was involved when students read the

photograph while translating. This is further enhanced by the fact that both TAP and video-recording analysis did not reveal any activity that could be attributed to image-oriented translation.

The tendency to ignore visual elements was also evident in the students' declaration that their training, as a whole, did not include the visual as a potential factor. On the other hand, the students acknowledged that MST is dependent on (literacies) skills that went beyond their training and educational background, such as the semiotic analysis of non-verbal elements. This was quite evident in the image-based questionnaire and in their difficulty to understand what they called 'technical terms' (e.g. vector, perspective, visual angle, validity of the message). In fact, most students claimed that they would have performed much better had they been trained in visual analysis. Moreover, one student suggested recruiting students from a cinema university department as participants in the hope of being better prepared to analyse visual elements. This shows an awareness of the inherent difficulties in translating multimodal texts.

The students acknowledged that the image-based questionnaire gave them the opportunity to take a closer and more systematic look at the various visual elements. However, the TAPs conducted in pairs showed that the discussions around the students' answers to the questionnaire did not involve any translation concern. In the first retrospective interview, most of the students stated that they looked for words that posed potential translation problems without relating them to the photo.

The students' multiple interpretations of the data-text, as a result of the various verbo-visual interactions, refute the argument that most pictures are capable of several interpretations until anchored to one by a caption. Students' reading of the caption of the data-text seems to obscure rather than anchor the meanings of the photograph. Their claims that the aircraft meant nothing to them suggest that students challenge the issue of the autonomy of the image as an integral 'visual text' within a larger multimodal text.

According to the retrospective questionnaire, for the majority of the students, the reading of the data-text did not involve potential interactions with its visual semiotic elements. However, they acknowledged that the retrospective interviews helped them to realize that there were such interactions, at least in the way they were presented by the researcher.

Research question 2: How do Greek undergraduates mediate between the semiotic elements of an English multimodal text when producing its Greek translation?

The answer to this question was informed by the theoretical framework for verbo-visual mediation in the translation of multimodal texts (see section 2.3.2) and the application of the coding scheme (see Table 3.8 and Figure 3.3). Briefly speaking, verbo-visual mediation is an expansion of Hatim and Mason's (1997) concept of mediation, which describes three ways in which translators intervene in the translation process as they slide along the verbal axis. The expansion allows translators to slide both on the verbal and on the visual axis. A key concept here is the structural autonomy of the image without, however, compromising the overall effect of the verbal/non-verbal entity. According to the coding scheme, reading multimodal texts is dependent on one's consciousness of how to read the author's intention

in three ways, as it concerns both the visual and the verbal elements used. The expansion of the mediation concept provides the basis so that the verbal TT may not always be rendered by reading the verbal ST but also (or even exclusively) by interpreting the visual ST.

In general, students' translations show a tendency to adopt primarily minimal mediation techniques, and secondarily, partial ones. In other words, they avoided deliberate interventions that would question and contest an interpretation of the ST visual elements and a reading of the ST verbal elements. Occasionally, students interpreted the ST visual elements and read the ST verbal in a way that shared some elements of the author's pre-constructed meaning. This tendency towards partial mediation techniques was more evident in cycle B, at least when compared with the mediations in cycle A.

The difficulty (and occasionally reluctance) in forming connections between the semiotic elements could be related to the students' inability to comprehend the concept of vectors in the image-based questionnaire. For example, students did not make the association of the baseball player's red mask with the BAESystems logo. On another occasion, students challenged the assertion that the verbal element 'next generation' could be rendered by a Greek phrase that was chosen as a result of reading a visual element, the young age of the player, even if this was a strategy to engage a particular type of audience (middle-aged parents).

There are two examples that are illustrative of the students' mediation techniques, those that refer to the 'hands' and to the 'ball'. While some students mediated between the verbal 'hands' and visual 'mitt' (the catcher's 'hand'), others made a conscious and openly declared effort to convey the meaning of safety. In reference to the 'ball', although the students identified its verbal relevance to (the) baseball (player), they did not recognize that the verbal translation is mediated through the image by means of the player's goal, which is to catch this (unseen) ball. Unless translators realize that the word 'ball' needs the image to pinpoint its semantic dimensions (to demonstrate a state of 'readiness'), they might end up with solutions that would 'betray' their translations, like the students who translated 'ball' literally.

Research question 3: Which techniques are effective for teaching Greek undergraduates the translation of English multimodal texts into Greek?

The answer to this question was informed by the activities included in the SSP (see Table 3.4). The most contributive aspects of this method of analysis were the questionnaire of the image-based analysis, the photo-elicitation, and the MST approach to translating the data-text. In addition, visualization and the role of the subject specialist played a key role in teaching the translation of multimodal texts.

Before beginning any MST teaching activity, translation teachers should ensure that the students have received (at least) customised training in visual literacy. 'Customised' here means that the students should have been familiarized with the basic visual-related terms and concepts regarding the ST at hand. If the data-text of this research was to be used in a

real translation teaching situation, the students should have been acquainted with basic photographic terminology before completing the image-based questionnaire. Teaching skills that are dependent on specialized terminology is a time-consuming process and requires long-term planning that cannot be fully implemented in a small-scale research project. The fact that the limited guidance provided in the retrospective interviews proved to be remedial (at least in stimulating the students to consider the potential of visual elements in the translation process) suggests that an integrated type of training might boost their performance.

The type of data-text was a decisive factor in teaching the translation of multimodal texts effectively. Here, the students' multiple interpretations of the modified genre 'image-nuclear advertising stories', as a result of the various verbo-visual interactions, refute Barthes' (1961a) argument that most pictures are capable of several interpretations until anchored to one by a caption. The caption seemed to obscure rather than anchor the meanings of the picture. Moreover, these verbo-visual interactions corroborate with Avgerinou and Pettersson's (2011) suggestion that pictures for information purposes should be accompanied by a legend in order to convey their information in a clear and unambiguous way. Though the picture in the data-text is not for information purposes, a legend that would introduce the picture's visual elements might have helped students to analyse it. As such, a legend might be necessary for all types of caption, no matter the overall purpose of the multimodal text. On the other hand, the appeal of an advertisement is partly dependent on its ability to address as many viewers as possible. Therefore, if

teachers are to use these types of text for training purposes they should inform their students of these unresolved conflicts.

Photo elicitation gave students the opportunity to discuss potential relationships between verbal and non-verbal elements. What they actually did was to produce four different multimodal texts using the same verbal element but four different photographs. Had it not been for the limited amount of time, the students might have been engaged in more lengthy debates about the appropriateness of their choices concerning which photograph belongs to the data-text. In fact, in a few cases these debates were so interesting in terms of raising their awareness of multimodal text analysis that I almost regret having stopped them. The working scenario that was set up at the end of the second retrospective interview engaged the students in the production of different multimodal texts, based on the suggestion of various photographs. Again, the discussion was very interesting, with the students assuming the role of the photographer or the publisher in their attempt to find a new photograph for the proposed data-text. These two techniques, photo elicitation and suggesting a new photograph, resemble the image-to-text and text-to-image activities of Tercedor-Sánchez et al. (2009), in the sense that the students had to move from an image to a text and vice versa.

Visualisation was mostly employed during the photo elicitation stage and working scenario discussion. Although the images visualised by the students may have triggered a process of creative thinking, this research did not manage to measure the extent to which this creativity led to creative translations. Although it is difficult to define what constitutes 'creative translation', it is easy to admit that, often, what is creative to one person may be

thought of as uncreative, unimaginative, uninspired, or even mundane by another. Also, it is difficult to monitor visualisation in the actual translation process, especially when the participant is silent. In general, evidence suggests that visualisation provided a springboard for creative thinking, rather than creative translation. However, creativity should be employed with caution because it could be misleading, as was the case with the student who associated the word 'ball' in the text with the baseball player's genitals to produce the inaccurate (and inappropriate) translation 'he has got the balls (to do something)'. Therefore, further empirical research is required to assess the role of creativity in translating multimodal texts.

The presence of the subject specialist in the translation classroom is an additional point of reference for the teacher and students, but this role should be clearly defined well in advance. It is characteristic that (some of) the students asked questions about the photograph only when I urged them to do so. While in this research the instructor and the expert were the same person, in a real-life training situation they would have been different people. That adds another participant in the classroom and a different set of relationships between the teacher, the students and the expert. Moreover, in contrast to this research, where the students were simply informed that they could ask me questions regarding the specialized nature of the data-text, students should actually be encouraged to ask questions about particular aspects of the text to be translated. For example, as soon as I drew students' attention to the shadow behind the baseball player or the fact that the company's logo is in red, they started analysing the photograph and making several verbo-visual associations. More verbo-visual associations were made when I urged students to recall war movies so as to relate military life and baseball in camps. However, as a whole, the

students were not keen to discuss their view of the role of the expert in the translation classroom. This points to the need for translation teachers to discuss with students how they perceive the role of the expert before bringing anyone into the classroom.

5. CONCLUSION

This chapter provides the reader with answers to the research questions as identified after the literature review and supported by evidence collected from the 5SP. Furthermore, it proposes lines of future work that are expected to help take aspects of this research even further and to shed more light on under-researched areas. In such a small-scale research project, it is not possible to draw definitive outcomes, but conclusions could be gathered to inform further research into the impact of the image on translation. Only when we have a clear understanding of what types of skill in visual literacy a translator requires can an effective training programme be achieved.

5.1 Translation and visual literacy

Translation is associated with visual literacy mainly through multimodality, a concept which has been recently conceived, and as such has only now begun to find its place in TS. The literature review has shown that multimodality has started to be recognized in TS, mainly through concepts such as ‘multimodal’, ‘multidimensional’, ‘intersemiotic’, ‘multisemiotic’ and ‘intersemiosis’. However, this stems from the proliferation of multimodal texts that have found their way in translation, rather than from TS seeking to expand as a field.

A problem is that logocentric theories have dominated TS thus far. The fact that the verbal element was, and in many cases still is, the main mode of communication of concern to TS makes multimodal approaches to translation a secondary issue. Although intersemiotic approaches to translation took into account the non-verbal mode, a major breakthrough for multimodality was the incorporation of SF approaches to translation. The concepts ‘visual

grammar' and MDA provide the tools for analysing multimodal texts as integrated units. Recently, there have been several attempts to explore even further the multiple nature of translation, such as through the concept of multidimensional translation. Although multidimensional translation is actually an expansion of intersemiotic translation, its application to all possible kinds of verbal/non-verbal interactions has moved TS even further forward.

Although there is not yet a consensus over the term 'multiple literacies', it has become clear that translation in general, and MST in particular, cannot be limited to translating words in one language into words in another language. Reading and analysing multimodal texts require an array of non-verbal skills, such as the reading of non-verbal elements, which could be facilitated by employing a kind of visual grammar. However, since this type of grammar is still under development, it is questionable whether this facilitation is really reliable. Also, a basic knowledge of other fields, such as graphic design or photography, goes beyond the translator's usual skills. In fact, the skills that may be needed are as many as the specialized domains of the multimodal text to be translated. In other words, visual literacy is definitely an asset, if not a requirement, for the translation of multimodal texts.

5.2 Non-verbal semiotic elements and interlingual translation

The starting point in my examination of the role of non-verbal semiotic elements, and in particular the image, in the translation of the verbal part of (print) multimodal texts was the concept of mediation. In general, the translator of multimodal texts cannot be limited to the role of communicator of language. Mediation facilitates the reading of the image beyond

polarities such as ‘free’ versus ‘literal’, ‘dynamic equivalence’ versus ‘formal equivalence’, or ‘communicative’ versus ‘semantic’. In MST, mediation, and in particular verbo-visual mediation, has been shown to provide a framework within which translation shares common features with subtitling, providing a new perspective on translation and new challenges for translators.

Old concepts such as ‘anchorage’, ‘illustration’ and ‘relay’ between images and words have been revived and re-examined from different perspectives. One of these is the image as an autonomous text in the translation of multimodal texts. In multimodal texts, translators are constantly looking for interpretations and over- or under-interpretations of the image in their effort to find the appropriate verbal element to accompany it, or to be removed from the TT. Translators should espouse the fact that any non-verbal element, in addition to any relationship it may have to a verbal element, has a structural autonomy, to the point of theorizing the picture as a text. In other words, any disregard of the potential impact of a non-verbal element is equated to leaving a verbal element untranslated. This moves the discussion to concepts such as the omission and addition of verbal and non-verbal elements in the TT even when the resulting verbo-visual associations were not made by ST readers.

A major breakthrough in examining the linguistic translation in relation to an image, in the very practice of translating, has been the concept of multidimensional translation. This enables the translator to approach the translation through two different channels, the verbal and the non-verbal. Each channel has an individual role to play; at the same time, their combined effect may be different to the mere sum total effect. It is interesting how

traditional, linguistic-related translation strategies such as compensation, addition, omission and redundancy have been adopted by the multidimensional translation concept. A problem with these concepts in relation to the visual channel is their Western cultural origin. That is, their application in the translation of culturally diverse multimodal texts, such as those belonging to the European and Asian (e.g. Chinese) cultures, may not be readily accepted. In these cases, the verbo-visual cohesion created in one culture may be broken when the text is rendered in the language of the other culture.

5.3 Training for multimodal semiotics translators

Traditionally, the training of translators has focused on the verbal dimension of the text. Recently, however, several innovative teaching practices have been adopted in translation training. Although this training is not labelled as ‘multimodal training’, it has all the characteristics of incorporating multimodal-based techniques. Translation trainers have started to realize that new pedagogical and pragmatic reasons dictate a change in translation training. The need to comprehend the specific qualities of the visual (e.g. basic photographic terminology, layout, typography) and the new environment their students are about to work in (e.g. web-based multimedia) cannot be met adequately by traditional translation training. Although most of these new techniques are restricted to specific fields, such as scientific and technical translation, or advertising, they are indicative of new trends in translation training.

A favoured technique is the production of multimodal texts as a teaching technique per se. This exercise may be limited to a mere description of images without the translation of verbal elements. An interesting exercise is the omission or addition of visual elements (e.g.

photographs and images) in the TT, which is like producing a new multimodal text. However, this exercise may be dependent on collaborative work with other stakeholders (e.g. graphic designers), on extensive background knowledge of the field (e.g. technical translation) or on multi-cultural knowledge (e.g. producing multi-language versions of manuals or illustrated picture books). Also, in specific fields, such as advertisements, students from various disciplines (e.g. translation, graphic design, advertising, business administration) could form a team and be assigned the task of rendering an advertisement/multimodal text in the language of another culture. In this team, all the members would have a specific job to do, but would have to take care to examine the impact of their work on the rest of the team. Another way to raise multimodal awareness is through the description of images even when they are totally devoid of an accompanying verbal element.

The relation of creativity to the visual aspects of translation is a relatively new concern in TS. This creativity is mostly associated with the production of multimodal texts, and in particular with the description of images. Even the fact that translators are looking at an image and trying to describe it might help them to arrive at a creative translation. Yet, there is the problem of defining whether (and to what extent) creativity is an inherent capability or whether it can be taught. Also, similarly to production techniques, examples of visual stimuli and creativity in translation have been found mostly in the context of teaching technical and scientific translation. A major problem seems to be education in creativity for translation purposes since there is no strong empirical data.

Similarly to production techniques, seeking expert advice (e.g. from a specialized field such as scientific texts) is one of the stages in the translation process. It is common belief that there will be times when the translator will seek an expert's advice. On the other hand, unlike multimodal text production techniques, the role of the subject specialist in the translation classroom is not so clearly defined. This role might be played outside the classroom under the term 'collaborative work', which may involve contacting people such as the publisher, editor or other translators. In fact, these people could be characterized as experts in their respective fields. Also, since translators are not supposed to have knowledge of specific editorial conventions, regular meetings with the editor might be necessary.

In TS, the term 'expert' is mostly associated with a working professional in the field of the text to be translated. It has been suggested that occasionally the role of the expert could be played by the translation teachers, at least as regards the fields in which they have specialized knowledge, often acquired as a result of their working experience. A risk associated with the expert and the translator is the likelihood of one trespassing on the other's field. Nevertheless, this risk could be alleviated if all stakeholders work collaboratively.

The extent to which the suggestions for curriculum development are realistic and how could they will be fitted in depend on various factors, such as the mode of teaching, the type of class and the availability of resources. In addition, while some suggestions may be realistic throughout the teaching period some may have to be fitted in a practical training period. For example, it could become a standard procedure to bring together students and

experts in various disciplines, such as law, technology, physics or architecture. This could take the form of a formal invitation to an architect, for instance, to join the class and discuss the translation of an architectural sketch. Alternatively, it could become a task for students to contact an advertisement company outside the class to discuss the localization of advertisements. On the other hand, it could be arranged a specific training period where the students would be placed in a translation agency, or a company, so as to prepare a translation portfolio on a specific translation area or subject.

5.4 Lessons learned from the five-step process

The 5SP placed the students within a particular educational framework of translation development. It was an effort to offer non-professional translation trainees the opportunity to start building up a body of knowledge on translating multimodal texts that goes far beyond the traditional translation classroom. I do not claim that a three/four-hour meeting would give these trainees the broader knowledge base needed for them to become ‘multimodal semiotics translators’. Instead, the 5SP offers a perspective on the roles of three stakeholders of translation, namely students, teachers and practitioners, based on the reflective practices of the researcher and the monitoring of a number of translation practices of undergraduate students. This obviously has its limitations and could lead these stakeholders to develop a one-sided view of what is (subjectively) considered to be effective MST.

The danger here is to adopt a single way of reading an image or a narrow perspective of what constitutes a multimodal text. Instead, the stakeholders need to remember that there is a wide range of semiotic modes of communication that blend together in different ways

depending on the type of text to be translated, the source- and target-language culture, the wider socio-cultural context in which they are found, and a number of other factors that have been identified here.

None of the students who participated in the research were considered to perform unsatisfactorily, but each had something different to learn from the sessions, and furthermore, each student gave a new perspective to the researcher. These features make it difficult to determine a close cause-and-effect link between the various stages of the 5SP and the impact that this has made on the students. While the 5SPs included some features of visual literacy skills and translation strategies, these were also a method to increase the students' translation awareness levels in a specific type of text, namely the multimodal text. As there are several types of text, subject fields, and pairs of languages, it is only possible to draw broad conclusions about the impact of the 5SP on improving the MST skills of translation trainees.

The design of the tasks using closely related sequential stages demonstrates that the 5SP was an attempt to incorporate a range of influences from prior experimental studies and theoretical perspectives. This has impacted on the way the 5SP process approached the students as participants. Perhaps the most dominant influences include that of a multidimensional approach to translation and the work that has been undertaken by a number of researchers on visual-based translation training. As a model of translation training, the 5SP presents a fair balance of prior understanding on intersemiotic translation and visual literacy. It also uses the research on multidimensional translation as an umbrella term in an attempt to identify the students' practices in relating verbal to non-verbal

elements in the translation process, and to provide a tool for understanding and applying MST.

In the eyes of the students who participated in the research, the 5SP appeared to be an innovative and high-quality training programme, in the form of a research-based crash-course. Most of them admitted that they had the opportunity to reflect on their performance in image analysis and engagement with an instructor to develop their translation skills for multimodal texts.

This study falls short of identifying whether students' performance in MST has or can be improved as a result of going through the 5SP. Indeed, it was never the intention of this research to state this as an outcome. However, in offering students new opportunities in the form of an alternative approach to translation and engaging them in collaborative work, the 5SP noticeably altered their perspective of image-text relations in translation in an unprecedented way. Even where this development was still short of producing a true MST, there is strong evidence that all the students benefited from some aspects of the move towards a multimodal semiotics perspective to translation.

The genuine efforts undertaken by all the students in the 5SP should be praised. Even those who felt that their translation approach was not congruent with a multimodal semiotics approach still recognized the importance of the latter. Nevertheless, the proposed approach was viewed by all students as ultimately beneficial because it enabled them to reflect on their own attitude towards the potential impact of the non-verbal semiotic mode on translation. Consequently, many made a shift in their translation approach and tried to

move away from the established practices they had been taught thus far. Moreover, since these practices are close to the principles of multidimensional translation, there is no strong evidence that the students did it consciously.

The hardest aspect was to identify the impact of image analysis on the students' translation of the data-text's verbal elements. There was limited examination of the causal links between identifying a visual element and adopting a translation strategy or choosing a particular word. This is because either the students ignored the image altogether (according to their own statement) or they did not provide enough data through the TAP and the first retrospective interview in order for their translation choices to be evaluated. For these reasons, the study is not able to draw direct image and verbal linkages and can only make assumptions based on the students' comments during the second retrospective interview, where they were introduced to a model for MST. Despite these reservations about the conclusions that can be drawn, the students in the research were able to recognize the limitations of translating a multimodal text by adopting verbal-only strategies.

There was a strongly held view by all the students that the 5SP had been beneficial. For some, this was focused on the analysis of the image itself. The majority argued that everything became clearer in the second retrospective interview, where the translation was approached from an MST perspective. It was accepted that the non-verbal part of a multimodal text has a role to play in translation, though this role is still unclear. It is encouraging that most of the students would be eager to repeat the 5SP, albeit with a different type of text. Perhaps the ultimate test of how beneficial the 5SP was felt to be

would be whether the students are now ready to adopt an MST perspective in their future translations.

The 5SP has led me to a deeper understanding of the impact that non-verbal semiotic elements can have on translation and made students reflect and take action on their role as translators. This reflection was based on a greater understanding of their performance and the 5SP, as evident from the second retrospective interview, the post-session questionnaire, and in a couple of cases, at the very end of the 5SP. There are limitations to this, since some students remained relatively silent or contributed very little in some stages, especially during image analysis, the translation of the preselected words and the retrospective interviews. This leaves some doubts as to their objectivity in reflection since there is always the danger of ex-post rationalisations inherent in retrospection.

Measuring the impact of the image on translation during the 5SP is a complex process because of the variables involved in the selection of the participants and in particular their literacy/skill levels and translation background. Essentially, if impact is about the way particular visual elements, for example a participant or a specific colour, lead students to choose a particular target-language word, judgements about the impact of the 5SP should be measured against long-term considerations of its effect on students' translation habits over time. This study was limited by time constraints and as such there is a need to engage in an even more focused and longitudinal study to measure changes in their translation performance. If we accept this limitation, it is worth examining further in what way the 5SP could have an impact on the way translation students approach the translation of multimodal texts.

The research carried out in this interdisciplinary study has been very beneficial in providing an understanding of the principles being applied from theory to practice. I believe that an effective translation training programme should give trainees the opportunity to deal with a variety of multimodal texts by teaching both bottom-up and top-down methods. MST requires a much broader approach to translation training that would involve a number of stakeholders that traditionally do not belong in the translation classroom. To an extent, this could be made feasible by bringing publishers, editors, graphic designers, or subject experts into the classroom, or by arranging visits to their workplaces. At the very least, students would be familiarized with collaborative working and learning. As a professional translator and instructor in general, I have been able to develop my own understanding of the process of MST and how these processes influence my work. I am more aware of the impact that I have on translation trainees and of the importance of reflecting on actions based on their feedback.

5.5 Limitations of the research

In order to fully appreciate the potential of this research, someone would have to take into account four main limitations: the type of participants; certain methodological aspects; the teaching approach; and the timing of the photo-elicitation exercise.

The first limitation has to do with the type of participants in terms of their academic background and translation experience. The participants were university students from a School of Philosophy and not professional translators. Although all four foreign language departments have specialized translation departments, all degrees are titled 'XXXX Language and Literature' (where XXXX stands for *English, French, German* or *Italian*)

and do not lead to a specialization in translation. The fact that the fourth-year students had taken a number of courses in translation did not automatically make them translation students, at least not in the way a department in translation studies could have done. The lack of extensive (formal) translation training and professional experience is further corroborated by the students themselves (see Tables 4.1). However, this assumption is based on the students' statement and not on a cross-examination of the translation courses offered by their university. Nevertheless, the TTs they produced could not have met any professional criteria, and as such, the assessment of students' work should only be seen from a translation training point of view in a higher education context.

The most obvious remedy for this limitation is to recruit students from a translation department. Were a follow-up research study to take place in Greece, the researcher would have two choices: either to visit the Ionian University in Corfu or to use students from a post-graduate programme in translation from the four foreign language departments. However, in the second choice, there is always the likelihood of coming across mature students with a considerable degree of professional experience. In this case, the replicability of the present research is dependent on excluding students with such experience. Another remedy would have been to use two groups, one with translation students and another with professional translators. The complicated factor in this choice is the training aspect. That is, if we accept that professional translators do not require any type of training, by providing assistance only to students, it is highly likely that there will be an imbalance between the two groups. In addition, since it might be difficult to find an appropriate training mode for both groups, the analysis of the evidence could be biased.

The second limitation is related to methodological aspects which require further development (or possibly need to be changed), in this case, the five step process, the data collection techniques and the absence of external evaluators/coders.

The 5SP should be continued by means of another cycle which would test, among other things, if and how students have raised their awareness levels by translating a new multimodal text. The questionnaire the students had to answer while analysing the photograph that accompanies the data-text corresponds roughly to the three stages of the SF-MDA model (see Figure 2.2) and was not prepared specifically for this research. In addition, the students had not received any type of training in visual analysis as part of the 5SP. As a remedy, the questionnaire should be modified to reflect the type of data-text to be translated and the fact that it is combined research in translation and in visual analysis. Moreover, a brief introduction to visual literacy, and explaining the exact purpose of answering the questionnaire, might help the students to realize the relevance of this task for the translation of the data-text.

The data elicited from the think aloud protocols cannot be considered totally reliable because no student had ever translated a text while thinking aloud. Although all students stated that this process did not cause them any problems, their statements cannot be taken at face value. The suggested remedy is to give students formal training in thinking aloud while translating but this would require a prolonged period of research. Therefore, in order to replicate the present research while applying this remedy, the future researcher would have to recruit students who have already been trained in think aloud protocols.

Another limitation has to do with the inability to elicit specific data, such as what students actually did during the revision process of the translation and how the photo-elicitation stage inspired them to translate the preselected words. A possible solution could be to ask specific questions, in the form of a questionnaire or an interview.

The criteria for choosing the words to be translated that are related to specific visual elements is another issue. It is exactly this word 'related' that needs to be elaborated and accounted for. In the translation classroom, this should be the responsibility of the trainer and trainees alike. Given the limited response in this research in stage d2, it is expected that, at least at the beginning, the trainer should provide more guidance as to what may constitute verbal/non-verbal relevance. Similarly, the coding scheme may have to be modified and no doubt applied to the codification of translations of various multimodal texts. Additionally, the image-based questionnaire should be used as a template and the set of questions modified after taking into account the text to be translated. For instance, a particular genre, a particular type of text, or even a specific multimodal text, may require a different set of questions.

The absence of external evaluators/coders to apply the coding scheme (see section 3.3.2) to the students' translations poses another limitation. Using external evaluators is a common procedure in translation research when it involves the analysis of translation products. My own codification of students' translations may have been biased by the criteria I had chosen for the words to be translated (see Table 3.7). Although this decision was part of my reflexive approach to this research, the element of bias may still be present. This limitation could be remedied by recruiting external coders but it should be borne in mind

that this codification scheme is still at an experimental stage and requires further examination and application in different types of texts.

The fact that the type of data-text – a text from a military newspaper – was almost completely outside the scope of university students' reading interests probably made the students less receptive to translating it. Although the text was not too difficult to understand, its 'militariness' further undermined the awareness-raising aspect. The suggested remedy would have been to use a different text, which is corroborated by students' statements in the post-session questionnaire that they would repeat the experiment but with a different type of text.

The third limitation is the fact that it was a teaching task as opposed to an awareness-raising task. While the first type refers to a structural practice approach to the formal instruction of a rule, in the second type the learners are encouraged to look for regularities and formulate the rule for themselves. In the area of teaching English as a foreign language, Mashhadi and Haghnevis (2012) argue that in the teaching task, the language structure is first presented and explained and then the students are required to do certain activities based on the taught structure. On the other hand, in the awareness-raising task, the learners' general awareness is raised as a preliminary to the main language teaching, partly through grammar. If the students are already prepared for the task, they are more receptive to it. Thus, they discover the grammar themselves rather than being taught as a pre-established style.

In this research, the first type of task was mainly adopted, while also incorporating an aspect of the second type. These two types are mostly evident in the visual grammar that was presented in questionnaire-format (see Appendix C) to the students, who then were required to translate the data-text. The awareness-raising aspect lies in the fact that the questionnaire also intended to introduce to the students the analysis of a visual element as a preliminary to the main task (i.e. the translation of the data-text). This strategy would ideally prepare the students for the main translation task, thus making them more receptive to translating a multimodal text. However, the students were not explicitly told the purpose of this questionnaire nor did they have to discover the visual grammar for themselves; on the contrary, the visual grammar was presented as a pre-established style.

The fourth limitation has to do with the selective introduction of photo-elicitation, which put the students that went through stage d4 at an advantage (see Tables 3.5 and 3.6). Moreover, the fact that students were given additional time for photo-elicitation when cycle A was repeated, and that all students in cycle B went through this stage, has created an imbalance in-between the cycles (see section 4.1.1). Given the effectiveness of this stage, the most obvious remedy would have been to allocate the same amount of time to all students.

5.6 Future work

The potential of this research is reflected in the proposed future work. With so many variables involved, further development of the 5SP as a model for practising and training in MST would be valuable. Further studies using and adapting this model would lead to a better understanding of how translation students could be trained to translate multimodal

texts. Also, translation practitioners could develop techniques that would help them to deal with multimodal texts in an effective and manageable way.

The next stage of research could usefully look at the way the different reading paths affect the translation process. The translation could be monitored by using eye-tracking software (Dam-Jensen and Heine, 2009) as a method for examining students' eye movements, so as to disclose their visual attention, in other words, trace their reading paths. By studying these reading paths, knowledge may be obtained about where students' focus their attention in the translation process. The order in which the various verbal and non-verbal elements are observed, and the corresponding time spent there, could be used by the researcher/teacher as anchoring points for feedback and further discussion. As a follow up activity, the same multimodal text could be split up into its various components (see the discussion related to Figure 3.2) and given in a different order to other students. It would then be possible to match the translations of the modified texts against the original data-texts by using the eye-tracking software. An eye-tracking-based research could also give answers to the question of how long the translator should delay the translation process in order to consider non-verbal elements.

Another line of research could be the development of the photo elicitation method. The students could be divided into groups, where each is given the same data-text for translation, but with a different photograph accompanying it. Similarly to this study, care should be taken to ensure that all photographs are related to each other and each one to (some of) the verbal elements. This could be followed by a focus group discussion where all students explain their translation choices. The students should feel confident about their

choice of verbal/non-verbal relations and feel able to challenge the teacher's and the other students' choices, and at the same time, be ready to defend their own. This may lead to the production of TTs that vary significantly. Even if these TTs were not considered as genuine translation work in professional terms (e.g. the translator would be paid for that job), their comparison could become a springboard for a fruitful and constructive dialogue between the students and the teacher.

Another promising line of research is to examine if there are specific translation strategies – such as foreignization vs. domestication or free vs. literal – that may be favoured by a multimodal semiotics perspective to translation. It is expected that this should only follow in-depth and long-term research into issues such as those described above. Only then will the potential relationships between verbal and non-verbal semiotic elements highlighted by the 5SP be further refined and be more able to stand up to scrutiny.

Further research is also required on the role of the expert, and in general of any stakeholder, in the translation classroom. Whenever subject experts are invited into the classroom, they should be prepared for their specific duties. This preparation may include the type of expert knowledge offered and the exact moments of intervention or interaction with the teacher and the students. Also, it might be worth answering the question how often (if at all) the translator adopts a fourth voice without prompting from the person commissioning the work. Yet, in all these cases, the students should be properly informed in advance and discuss any concern they may have about the intervention of a third party.

It would also be interesting to compare and contrast MST to subtitling within the broader field of TS. The literature review and the 5SP have shown that they share many common features. This study suggests that these two areas have quite penetrable borderlines, and at times, overlapping aspects.

In order to improve the 5SP, more types of text should be examined so as to find those types (if any) that may favour a multimodal semiotics approach. Too much reliance on a model based on the examination of a limited type of text could undermine its validity. Unless there is a sample with a wide range of text types, there cannot be confidence in the 5SP as an effective training model.

This research has also highlighted the importance of localization in translation studies. In particular, the working scenario of finding a new photograph for the data-text has made it clear that translating the advertisement does not end with the verbal part, but with delivering the final product, according to the editor's requirements for the new (Greek) intended audience. Such a localization scenario calls for combining language translation with photo-journalism, further entailing new procedures such as functional and linguistic testing of the localized advertisement. In a westernized context, it is common practice for advertisements to become globalized by keeping intact the photograph and localizing the text. This is based on the assumption that the advertisement images will become a kind of fashion icon. The challenging factor in this research was the requirement to change the photograph rather than the text. This is beyond the normal call of a translator and as a result a new specialized sector emerges in close association with the advertising industry, which reflects the complexity involved in making an advertisement global-ready.

The dissemination of part of this study at various international conferences has been met with a variety of responses. These ranged from enthusiasm and great interest in the way I have approached translation or the comparison to subtitling, to scepticism about the translators' 'authorisation' to move beyond language-based translation and adopt non-verbal-based strategies. This last point takes us back to the beginning of this study and to the interest in problematizing the verbal/non-verbal divide in TS. Therefore, any such endeavour should be properly delineated and modest in its scope.

5.7 Beyond English-Greek Translation and Greek Higher Education Institutions

The significance of the thesis should also been seen in terms of its applicability beyond the language pair English-Greek and Greek higher education institutions. This significance lies in, among other things, particular pairs of languages, their intercultural communication implications, and with the proliferation of translation studies programmes at an international level.

An evaluation of this research should be made through the perspective that although Modern Greek is not an internationally widely spoken language, it is nevertheless a European one, and as such it shares some of the features of westernized language. The cultural realities in relation to photography that have been discussed here are contrasted with Eastern cultural ones. For example, the given-new, ideal-real, and primary-secondary information organisations are limited to those cultures where the writing system moves from left to right, top to bottom and centre to periphery, respectively. In addition, although there is a demand for languages other than the main European ones (for example,

Portuguese, Finnish and Dutch or the languages of new entrants to the EU), these are not yet being taught in Greek public institutions. The discussion and analysis in this thesis provide a solid basis for researching other Western language pairs, as well.

The curriculum innovations proposed here should incorporate other new developments, such as the Common European Framework of Reference for Languages (CEFR, 2007). Since the concept of mediation is already present in this framework, in its general use, the mediating needs and relevant skills could be systematically looked into through research from the translator's perspective. Particularly relevant is the suggestion to focus on language mediating, which seems to encompass one of the main uses of intercultural communication. Bancroft argues that 'while the term "cultural mediator" is spreading fast across Europe (and beyond), its meaning and usage are not consistent' (2004, p. 32). The breadth and range of the 'cultural mediator' varies across countries.

In Greece, the cultural mediator is mostly associated with the people who are officially assigned to help immigrants communicate with the public and private sector. In a European context, the term cultural mediator is broader in Spain than the respective 'intercultural mediator' in Belgium or the 'cultural mediator' in Switzerland. This inconsistency shows a need for clarification of the role of professional translators-mediators, and consequently for relevant training in the European context. As a result, practical training in intercultural communication for translator trainees is considered necessary in a higher education context.

The situation in Greek higher education does not differ much from the situation in European or international higher education. As it has been pointed out by Tan (2008), there is a general

‘lack of understanding of the true nature of translation teaching in university translation programmes, especially in terms of its purpose and the kind of end products it aims to have’ (2008, p.253).

In terms of the creativity required to make associations between verbal and non-verbal semiotic modes, translation teaching, both in Greece and elsewhere, does not focus very much on the education of students as creative, intelligent and competent human beings. Bernardini (2004) ascribes this lack of focus to the inability to distinguish between ‘translator training’ and ‘translator education’ for university translation programmes. While the former is devoted to the specific skills required by the translator, the latter balances between translation specialist competence and language teaching and learning.

My research has led me to conclude that the cultural conditions of the media in the EU context are such that it would be necessary to develop professionalised training for translators in order to promote European cultural unity through cultural diversity and to maintain the cultural richness in today’s multilingual societies. While in multimedia environments there are many cultural differences, in the case of newspapers and magazines this sort of publishing overlaps in the EU context. For this purpose, interdisciplinary and international approaches are to be favoured. Course contents and principles of practice could be developed and homogenized to allow for a smooth exchange of translator trainees

between educational institutions. On other occasions, the content and principles could be context-specific, or even context-differentiated, in view of the on-going European enlargement.

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**APPENDICES HAVE NOT BEEN
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